

# Poster Abstracts

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## ADVANCED PRACTICE

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### ACUTE SKIN FLARE REACTIONS AND LONG TERM SKIN IMPROVEMENTS IN CTCL WITH MOGAMULIZUMAB

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Category: Symptom Management and Palliative Care

Mogamulizumab-kpkc is an antineoplastic agent FDA approved for cutaneous T-cell lymphoma (CTCL) patients with mycosis fungoides (MF) or Sezary syndrome (SS). Skin involvement can be one of the most debilitating and life-threatening consequences of the diagnosis. Patients with skin lesions often experience extreme discomfort and a high rate of infections due to the nature of the disease. Mogamulizumab has been approved for patients with relapsed and refractory MF/SS and has shown activity in blood and skin manifestations. Acute skin flare reactions related to the initiation of the drug have been reported, causing an increase in pruritus and skin inflammation. This dermatological toxicity can be dose limiting for some, due to the nature of the acute skin response and unwanted side effects, and can be difficult to differentiate from worsening of the underlying disease. Patients have been removed from the drug in clinical trials due to the intensity of the skin reaction, although no life threatening skin reactions have been observed. If skin flare is managed, patients may be able to remain on treatment; and after initial skin flare a number of patients had complete or partial remissions. Topical steroid creams and low dose oral steroids have been effective options for management of the acute skin flare reaction, without the need to suspend the infusions. We have established a standard of care for the management of the acute dermatological toxicities with Mogamulizumab. We report results on 11 patients: two MF and nine SS, with circulating cells and erythroderma. Skin flare was observed in eight of the 11 patients. We initially manage skin flare with topical steroids and if no improvement by the next infusion, we start oral steroids. Of the patients with skin flare, seven were able to remain on treatment and five had a clinical response and remain on the drug with good control of disease, with no further skin issues. Responses were seen in all patients who had received oral steroids for skin flare. Based on our experience, we now educate patients about the possibility of skin flare and our nurses on pre-emptive monitoring of patients with SS for worsening of

the skin after initiation of therapy. We emphasize the need to continue the drug if possible in order to achieve optimal effectiveness.

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### IMPROVING PANCREATIC CANCER PATIENT OUTCOMES WITH GERMLINE MUTATION TESTING AS WELL AS SOMATIC TESTING

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Category: Oncology Nursing Practice

Pancreatic cancer is the world's toughest cancer. The five-year survival rate for pancreatic cancer is just 9 percent. Pancreatic cancer is currently the third leading cause of cancer related death in the United States. This is, in part, due to lack of early detection strategies; most cases are diagnosed at advanced stage despite the long amount of time required for metastatic disease to develop. In 2019, an estimated 56,770 Americans will be diagnosed with pancreatic cancer and 45,750 will die from the disease. A review and evaluation of studies regarding germline and somatic mutation studies in pancreatic cancer patients was done. The current standard of care therapies for metastatic pancreatic cancer are comprised of cytotoxic chemotherapies, but despite recent improvements, the median overall survival is still less than one year. Recent improvements in next-generation sequencing technology have enabled detection of biomarkers in cell-free DNA. The genetic somatic landscape of pancreatic adenocarcinoma is characterized by the presence of four frequently mutated genes: KRAS, CDKN2A, TP53, and SMAD4. Approximately 10% of pancreatic cancer patients have an inherited gene mutation. Approximately half of the patients with a germline mutation will not have a family history. 20% of pancreatic cancer tumors have defective DNA repair. Mutations in the BRCA1 and BRCA2 cancer susceptibility genes, which are associated with defects in homologous recombination repair (HRR) of DNA double-strand breaks, are prime examples of such predictive and prognostic biomarkers. BRCA1 and BRCA2 mutations are associated with hypersensitivity to PARP inhibitors, which accentuate the formation of DNA double-strand breaks in HRR deficient cells. All pancreatic cancer patients should receive an opportunity for germline testing as well as somatic mutation testing. With increased information about the specificity of this deadly disease, more precise treatment can be recommended improving outcomes. Latest NCCN guidelines include germline testing for any patient with confirmed pancreatic

cancer. Germline and somatic mutation testing should be a standard of care for biopsy confirmed pancreatic adenocarcinoma. The Nurse Practitioner integrates evidence-based practice with national guidelines to improve outcomes for patients. The Nurse Practitioner is key to ensuring that the appropriate genetic testing is ordered, educating the rest of the oncology team about this process, and providing genetic counseling support in areas that do not have access to a genetic counselor.

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### UNIT-BASED ADVANCED PRACTICE PROVIDER MODEL ON A MEDICAL ONCOLOGY UNIT

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Category: Coordination of Care

2 South Oncology is a twenty-six bed dedicated oncology unit at Sentara Virginia Beach General Hospital providing complex care from admission to discharge. Key areas for improvement identified by SVBGH Nursing Leadership in the oncology setting include length of stay (LOS), discharges, collaboration and communication between providers as well as continuity of care. Multidisciplinary Rounds were highly effective; however, the addition of an advanced practice provider (APP) to bridge gaps between physicians was necessary. The team asked, "Could putting a full time APP on the unit seven days a week impact key hospital goals and improve patient experience and outcomes?" Two practitioners were hired and a detailed onboarding plan was created to provide structure for experiences, education and expectations. Long-term objectives include: (a) Improve patient satisfaction (HCAHPS) scores on physician based communication, education and discharge, (b) decrease oncology inpatient mortality and LOS, and (c) improve Virginia Oncology Associates provider and nursing satisfaction with hospitalist service. APP hiring was accomplished by removing a full time physician and replacing with two nurse practitioners. Key stakeholders were identified and plans for scheduled check-ins were communicated. Results show improvement in the following areas: patient experience, physician communication, staff and physician satisfaction, advanced care planning, and LOS. Data collection around mortality and readmissions is still in process. Patient experience scores and nurse

satisfaction showed improvement. Patient discharge times have improved. Frequent family conferences are being held thus improving continuity of care between providers, thus decreasing LOS. Unit average length of stay of 6.9 days. APP availability has shown an increased awareness of patient health and psychosocial concerns during MDRs as well as decreased length of stay while building a lasting relationship. The APP is available for emergent situations and family meetings when physicians are not. Suggestions: (a) When implementing APP in the oncology setting, onboarding should be specific and goals clearly stated. (b) Continued mentorship outside of the nursing role is necessary for onboarding new hire nurse practitioners. Innovation: Strengthened interdisciplinary relationships; improved nurse satisfaction with hospitalist service; improved communication regarding POC for patients between oncology service providers, hospitalists, and nursing staff; timely assessment of declining patients; and timely order entry and bedside visits to see patients throughout the day.

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### SYMPTOM MANAGEMENT FOR PATIENTS WITH RELAPSED AND REFRACTORY MULTIPLE MYELOMA RECEIVING THERAPY WITH SELINEXOR (XPOVIO™)

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Category: Symptom Management and Palliative Care

Multiple myeloma (MM) is the second most common hematologic cancer. In July 2019, the Food and Drug Administration (FDA) granted accelerated approval to selinexor in combination with dexamethasone for patients with relapsed refractory multiple myeloma that have received at least 4 prior therapies (refractory to 2 immunomodulatory agents, 2 proteasome inhibitors and anti-CD38 monoclonal antibody) due to data from the STORM protocol. The purpose of this project was to discuss supportive care measures and strategies used at Mt Sinai Hospital (MSH) to improve tolerability and increase response rates. Administration: Selinexor 80 mg PO and Dexamethasone 20 mg PO on Days 1, 3, 8, 10, 15, 17, 22, 24 of a 28-day cycle. Common toxicities include nausea, anorexia, fatigue, thrombocytopenia and hyponatremia. 28 of the 123 patients enrolled in STORM were treated at MSH and demonstrated longer overall response rates (53.6% in MSH vs. 26.2% in overall STORM population) and less discontinuations due

to toxicities (3.7% vs 18.8%). Our methods included starting the following prophylactic medications prior to treatment: ondansetron 8 mg PO three times a day, olanzapine 2.5 mg PO daily at night, and rolapitant 180 mg PO every two weeks. In addition, intravenous (IV) fluids 1 to 3 times a week, along with a nutritional consult at baseline and at regular intervals improved tolerability. Methylphenidate 10 mg PO daily relieved fatigue that was unresponsive to selinexor dose modifications. Platelet transfusions and romiplostim 10 mcg/kg SC weekly on selinexor off days were used to mitigate thrombocytopenia. Hyponatremia was treated aggressively with IV fluids and sodium chloride 1 gram PO three times day. Using a medication diary, providing calendar for appointments, involving social work and educating both patient and caregiver regarding medications and anti-emetic schedule improves adherence. In addition, anticipatory guidance and implementing a day 3 phone call to ensure correct medication schedule and to discuss potential side effects is effective. Finally, a visiting nurse may help with medication administration and polypharmacy. Patient education should include discussion of common toxicities and appointments for evaluation/supportive care measures. Optimization of supportive care and oral adherence is critical to maintain patients on treatment longer to get better response rates in this triple class refractory population.

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### **TUMOR LYSIS SYNDROME: AN ELECTROLYTE EMERGENCY**

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**Category: Oncology Nursing Practice**

Tumor lysis syndrome (TLS) refers to a constellation of metabolic disturbances that may follow the initiation of cancer treatment. It can occur in patients with bulky, rapidly proliferating tumors such as high-grade lymphomas, acute leukemia, Burkitt's Lymphomas, leukemias with high white cell counts. TLS results from the release of intracellular ions and metabolic byproducts into the systemic circulation. An evidence-based algorithm is utilized to identify, treat and monitor TLS at a National Cancer center. Application of this algorithm will be presented in the context of a case study, including diagnostic testing and treatment protocols. The case study focuses on a man, 48, with T Cell prolymphocytic leukemia who presented with hyperkalemia, hyperuricemia, hyperphosphatemia, elevated BUN and creatinine and

hypocalcemia. Patient JG, was identified as high risk according to the algorithm with hyperleukocytosis, LDH greater than 2 x normal, uric acid greater than 7.5 and high risk disease. JG was treated with allopurinol due to G 6-PD Deficiency. By day 6 this patient's lab work indicated TLS and AKI, required aggressive continuous renal replacement therapy (CRRT). The patient was advanced in TLS/AKI and due to G6PD Deficiency, we were unable to treat with rasburicase. The case study demonstrates how application of the algorithm resulted in care of the patient. Patients with TLS are critical and must be assessed early and frequently to reduce mortality. Application of algorithms for the identification, treatment and monitoring of TLS is fundamental to successful practice in managing this life-threatening condition. Hematology APPs should be familiar with early signs of TLS and manage patients, utilizing evidence-based algorithm. Assessment is crucial in treating the malignancy early, recognizing symptoms of TLS and preventing life-threatening conditions.

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### **SARCOMA CARE: VERY RARE SO BE AWARE!**

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**Category: Oncology Nursing Practice**

Sarcomas are rare cancers of the musculoskeletal system. Sarcomas can occur at any age. Sarcomas form from the connective tissue of the body such as muscle, bone, cartilage, fat, blood vessels, and nerves. According to the American Cancer Society approximately 16,250 patients will be diagnosed with a bone or soft tissue sarcoma in 2019. Sarcomas behave and spread differently than carcinomas and develop mainly in the extremities. The treatment for sarcomas has changed drastically over the last 50 years due to advances in chemotherapy, radiation, immunotherapy, targeted therapy, prosthetic technology, and surgical techniques. The standard of care for an extremity sarcoma is limb sparing or limb salvage surgery. Delay in diagnosis and incorrect surgical biopsy or resection of a tumor, can decrease a patient's chance of limb sparing surgery and even survival. Due to the rarity of these tumors it is best for patients with sarcoma to be treated at a Sarcoma Center, by musculoskeletal oncologists, who are orthopedic surgeons, fellowship trained in sarcoma care. However, due to the distance patients may have to travel to a sarcoma center, more patients are getting their treatment locally by their medical oncologist and radiation oncologist who are working in collaboration with a

sarcoma specialist. Therefore, the need to be knowledgeable about sarcoma care as an oncology nurse is imperative. The purpose of this lecture is to educate oncology nurses about bone and soft tissue sarcomas and the complicated care and treatments these patients need for their rare type of cancer. The lecture will discuss the 3 primary bone sarcomas as well as the most common soft tissue sarcomas and treatment options for each. Case studies will be presented showing surgical resection and reconstruction of bone and soft tissue defects. Since the surgical procedures are quite involved the post procedure care can be very complex. The patient will be at risk for wound complications and infection due to side effects from chemotherapy and radiation treatments. Therefore, to provide the best patient care, it is important to understand the surgical treatment options for sarcomas and how chemotherapy and radiation can affect the healing process.

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### **PRECAUTIONS FOR PATIENTS TAKING AROMATASE INHIBITORS**

**Mary Heery, APRN, Norwalk Hospital, Norwalk, CT**

**Category: Treatment Modalities**

Aromatase Inhibitors (AIs) are the drug of choice for the treatment in postmenopausal women with an estrogen/progesterone positive breast cancer diagnosis. Aromatase is an enzyme that catalyzes the final and rate-limiting step in the biosynthesis of estrogen. Inhibitors of this enzyme are an effective therapy for breast cancer. The benefits of these agents have been clearly shown through various clinical trials, yet adherence may be challenging for some patients due to issues of drug interactions, proper first dose education, and adverse effects. Educating patients with a one page teaching sheet, Precautions for Patients Taking Aromatase Inhibitors, may improve AIs effectiveness and prevent complications. Advanced Nurse Practitioners are in a position to prescribe AIs, review medication interactions, educate patients, impact patient's quality of life, improve patient's sense of control and increase patient's partnership with their oncology providers.

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### **LUNG CANCER SCREENING**

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**Category: Screening, Early Detection, and Genetic Risk**

Lung cancer was the leading cause of cancer related death in the United States in 2014. Age and number of

years of tobacco exposure are the two most common factors associated with lung cancer incidence. Chest radiography (CXR) and sputum cytology have been used to screen for lung cancer. Objections to lung cancer screening with low dose computed tomography (LDCT) have included possible harmful exposure, over diagnosis and cost. There continues to be a stigma associated with lung cancer, and this can affect participation in screening. Lack of an established primary care physician can impact an individual's ability to access screening and follow up with recommendations. Despite the evidence that supports LDCT and existing national guidelines, screening rates are less than 2% across the United States. The purpose of this quality improvement project was to educate and help primary care providers and nurses identify high-risk patients and increase screening referral for those that meet criteria for lung cancer screening based on the United States Preventive Services Task Force (USPSTF) guidelines. An evidence based search revealed evidence from the landmark National Lung Cancer Screening Trial (NLST), there were 20% fewer deaths from lung cancer among persons who were screened with LDCT compared to chest radiography. Lung cancer screening guidelines were shared at education sessions and community events. Lung screening results for a three month period were reviewed and showed 485 were screened with LDCT. Negative results were reported for 359 (74%), 25 (5%) were probably benign findings, 39 (8%) were Lung RAD 4 categories that will require additional testing for suspicious nodules. Of those 8 (20%) received a cancer diagnosis. Six of the 8 patients were identified as stage 1 or II, and 1 stage III, and 1 stage IV. Lung cancer screening with low dose computed tomography detects lung cancer in earlier stages and reduces mortality. Nurses work in various primary care and community settings and have opportunities to educate patients about lung cancer screening and impact health outcomes.

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### **IMPROVING SURVIVORSHIP CARE IN RADIATION ONCOLOGY: OPTIMIZING THE NURSE PRACTITIONER ROLE**

**Karol Huenerberg, RN, APNP, FNP-BC, AOCNP®, UW Health, Madison, WI**

**Category: Survivorship**

There were an estimated 15.5 million cancer survivors in the United States in 2016, a number expected to reach 20.3 million by 2026. The 5-year survival rate for breast cancer, the leading site of new cancer cases for



women, is 90%. The 10-year survival rate for all stages of prostate cancer, the leading site of new cancer cases for men, is 98%. Many patients with breast or prostate cancer will receive radiation therapy as part of their cancer treatment plan. Radiation oncology practices can play a key role in cancer survivorship care, including the provision of a treatment summary/survivorship care plan. As advanced practice providers, including nurse practitioners, are increasingly integrated into radiation oncology practices, they can be an integral provider of comprehensive survivorship care to this large patient population. The purpose of this project was to improve survivorship care and enhance the patient experience by optimizing the nurse practitioner role in the radiation oncology department in a large comprehensive cancer center. As part of the post radiation therapy follow-up process, the nurse practitioner role developed into a 1-month post radiation follow-up visit for breast patients and 6-week post radiation follow-up visit for prostate patients. The focus of this visit includes identifying and managing acute treatment related toxicities; education about potential late treatment related effects and their management; information about cancer surveillance; identifying survivorship needs and initiating referrals; formulating a follow up plan and coordinating care; and providing a treatment summary/survivorship care plan. Outcomes will include consistently high patient satisfaction measured on satisfaction surveys and identification of an individual's survivorship needs from patient completed survivorship questionnaires. Electronic health record data reports will be utilized to measure referrals to support services and the number of breast and prostate cancer patients who received a treatment summary/survivorship care plan in the radiation oncology department.

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### **THE PROCESS OF ONCOLOGY NURSE PRACTITIONER PATIENT NAVIGATION: A GROUNDED THEORY APPROACH, NURSE PRACTITIONER NAVIGATOR, VERSUS RN NAVIGATOR, WHAT ARE THE DIFFERENCES?**

Frances Johnson, PhD, Texas Woman's University, Houston, TX

Category: Oncology Nursing Practice

Nurse practitioner (NP) navigation, in general, has been shown to achieve cost effective quality care, while saving millions of dollars. Research though scant has shown that oncology nurse practitioner navigators' improve clinical outcomes. For purposes of this study, oncology NP navigators are nurse practitioners

with a certification in oncology who utilize navigation processes to care for cancer patients along any aspect of the cancer care continuum. Navigation process is defined as "a series of actions or steps taken in order to achieve a particular end". The purpose of this study was to answer the question: What processes do oncology nurse practitioner navigators use in caring for cancer patients? In this parent study, twenty oncology nurse practitioner navigators were interviewed through the use of a semi-structured interview utilizing grounded theory methodology. This resulted in a well-defined set of concepts and theoretical framework for the process of ONP navigation which lays the groundwork for program evaluation and role delineation. It was determined that program evaluation is evident in all aspects of the navigation process, and evolved to manifest navigation systems. Critically important to program evolution was the identification of the RN Navigator and NP Navigator team. An important query that was made during the study answered the questions: 1) what are the differences between NP versus navigator duties? and 2) What are the differences between RN navigator versus NP navigator duties? Information pertaining to these novel roles is important, in delivering streamlined quality care; however research is lacking which addresses the roles and responsibilities of an RN/ NP navigator team. This presentation presents a summary of the responses as viewed by the NP navigators. Presentation of these qualitative findings is important in that they lay the ground work for future inquiry for evolving program evaluation and development, involving quantitative research. This presentation in addition to reviewing the participant responses will address current related literature, as well as suggestions for approaches for further quantitative studies.

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### **THE NURSING IMPERATIVE TO IDENTIFY PARTNER OR CAREGIVER ABUSE IN THE ONCOLOGY PATIENT**

Lydia Madsen, PhD, RN, AOCNS®, Cizik School of Nursing, UTHealth, Houston, TX; Kristin Ownby, PhD, RN, AOCN®, Cizik School of Nursing, Houston, TX

Category: Psychosocial Dimensions of Care

Intimate partner violence (IPV) is broadly defined as abuse perpetrated by someone in a current or previous relationship with the victim. Abuse may occur on a continuum ranging from isolated incidents described as situational couple violence, to intimate terrorism which may encompass physical injury, social isolation, intimidation, verbal threats, sexual assault and/or economic control. IPV crosses all socioeconomic

boundaries with a high lifetime prevalence of 20–50% across all populations. US Preventive Services Task Force (USPSTF) recommended health-care providers routinely screen female patients for IPV, aligning with the 2011 recommendation by the Institute of Medicine (IOM) that all women of childbearing age be routinely screened by their health-care provider for IPV. Guidelines reflect current evidence that screening and intervention in the health-care setting reduce both the incidence of IPV and related health outcomes. IPV and/or abuse intersect with oncology because of the vulnerability of the cancer population. Few studies focus solely on the oncology population, with no studies to date, providing incidence statistics with IPV during or following cancer treatment. However, cervical cancer has well-documented higher occurrence rates and delayed diagnosis in women who've experienced IPV, than women who have not experienced some form of abuse. Consistent screening of oncology patients should be initiated through education of all RNs to facilitate the integration of routine screening practice. Physicians rarely screen for IPV; a 2007 study noted 3% of the cohort recalled a health care provider asking about physical or sexual violence during routine medical care visits. RNs evaluate oncology patients initially and in routine follow-up settings as the point of contact for patients experiencing medical issues associated with care that require follow-up. Complexity within the health care delivery system for oncology patients requires designation of roles. RNs consistently interact with patients across the continuum of care; incorporating an assessment for all dimensions of psychosocial health should become an essential aspect of RN practice. Cancer care is complex; the RN role must expand to consistently incorporate comprehensive psychosocial assessment of the patient's home environment.

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### **NURSE PRACTITIONERS CARE FOR ACUTE LEUKEMIA PATIENTS WHILE TAKING VENETOCLAX: THINGS TO MONITOR**

Sharon Mattox, APRN, FNP, UT MD Anderson Cancer Center, Pearland, TX

Category: Oncology Nursing Practice

As a Nurse Practitioner, we are challenged daily, but often rise to the occasion and treat our patients with dignity and respect. The Nurse Practitioner's role is vital when caring for patients with Acute Leukemia, and especially those patients who are taking Venetoclax. Once the patient is screened by the healthcare team and started on Venetoclax, there are specific things that the Nurse Practitioner must be monitoring for and ways to help

the patient while taking this medication. Venetoclax, also called Venclexta is a BCL-2 inhibitor selective indicated for the treatment of patients with chronic lymphocytic lymphoma. This medication is also used in combination therapy for acute myeloid leukemia. While patients are on this medication, there are multiple side effects such as neutropenia, nausea, diarrhea, anemia, upper respiratory tract infections, fatigue, and thrombocytopenia. So therefore, while patients are taking Venetoclax, the Nurse Practitioner has to monitor the patient closely and identify symptoms immediately. While taking Venetoclax, patients are required to have blood work on a weekly basis initially and then less frequently as time goes on. Additional things that the Nurse Practitioner is on alert for are bleeding, back pain, swelling, fever and headaches. Patients are normally started on a low dose, for example Venetoclax 20 mg daily for 7 days, followed by weekly ramp-up dosing. On November 21, 2018 the Food and Drug Administration granted accelerated approval to Venetoclax in combination with Azacitidine, Decitabine and low dose Cytarabine for treatment of newly diagnosed acute myeloid leukemia in adults. Hematologically, over 45% of the patients may experience neutropenia, 20–30% will develop anemia and thrombocytopenia. In addition, 15–20% of patients may experience hyperkalemia, hypophosphatemia and hypokalemia. Patients may also experience tumor lysis syndrome and hyperuricemia. Additional complications include pneumonia, gastrointestinal issues, as well as fatigue are common complications. As Nurse Practitioner, it is important to monitor for anemia, thrombocytopenia and transfuse blood and platelets when needed. Overall, the Nurse Practitioner must be knowledgeable when treating patients with Venetoclax and take immediate action in order to ensure patient safety. Furthermore, the number one goal for the Nurse Practitioner is to monitor patient closely while on this medication and be ready to take action to help improve patient efficacy.

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### **COMMUNICATION, COLLABORATION AND EVIDENCE BASED PRACTICE IN THE MANAGEMENT OF IMMUNOTHERAPY INDUCED HYPOPHYSITIS: A CASE STUDY**

Natalia Mazzitelli, RN, University of Rochester, Elmira, NY  
Category: Oncology Nursing Practice

According to an article published in *ONS Voice*, "How APRNs Can Manage Immunotherapy-Related Hypophysitis in Patients with Cancer", immunotherapy, may place patients at risk for toxicities that differ from traditional chemotherapy. Around the same time, our

cancer center had started several patients on combination immunotherapy, that included both, Opdivo and Yervoy, for the treatments of Renal Cell Carcinoma and Small Cell Lung Cancer. After three doses of the aforementioned double immunotherapy, a patient developed severe nausea and vomiting with pronounced dizziness and complaints of weakness. The patient was admitted to the hospital for a full workup including a CT scan of the head to rule out the possibility of brain metastasis. The scan was negative but the workup did not include drawing Cortisol or ACTH levels. When the patient returned to the clinic and these symptoms were reported to the nurse, she recognized them as uncommon side effects for a patient receiving immunotherapy. The nurse approached the physician and shared the ONS article. The physician looked further into this rare immunotherapy related complication called “Hypophysitis” which occurs in “4.6% of patients with renal cell carcinoma and in 3.4% of patients with colorectal cancer. This toxicity appears to be more prominent in patients receiving combination therapy.” Thus, both Cortisol and ACTH levels were obtained and importantly the patient’s levels were almost undetectable! Endocrinology was consulted; the patient received high doses of steroids and the treatment was permanently discontinued. Within a few weeks the patient returned to baseline, that is, no longer feeling dizzy, nauseous or vomiting. Since that incident, Cortisol, ACTH and Thyroid level checks at baseline and every 9 weeks for all patients receiving immunotherapy (regardless of whether they are on mono-therapy or a combination regimen) have been implemented at our center. The outcome of this case demonstrates that collaboration and communication among the cancer treatment team members as well as utilizing evidence based practice data are important tools in providing safe and quality care. Appreciation among team members becomes stronger with nurses leading education, research and specialized hands-on care in the treatment of oncology patients.

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### **THE IMPORTANCE OF THE NURSE PRACTITIONER IN INTEGRATIVE ONCOLOGY**

**Meaghan McGuire, CRNP, University of Pittsburgh Medical Center, Pittsburgh, PA**

*Category: Treatment Modalities*

Nurse practitioner’s (NPs) are important to the health care model. Towel, et al., concluded that patients are very satisfied when seeing nurse practitioners and that the value of nurse practitioners continues to grow. NPs are the front line when it comes to answering questions

about holistic or nonmedicinal treatments; therefore, having a strong knowledge about integrative oncology is imperative. Approximately, 68% of oncology patients in the United States engage in complementary health approaches. While there are several therapies that exist in which value is unknown there are several which do have data concluding improvement in symptom management including neuropathy, pain, arthritis, nausea/vomiting, anxiety, etc. At my institution I embarked on a historically nurse based training and was the first NP to attend training through the Wellness and Integrative Oncology Nurse Ambassador Program at UPMC Hillman Cancer Center. The goal of the Nurse Ambassador program is to educate oncology providers about several integrative therapies within the clinical setting. These therapies include aromatherapy, seated yoga, meditation, breathing techniques, and hand/foot massage to promote symptom management and wellness of oncology patients. The two-day training includes history and current data to support use of these integrative therapies. The goal of the program is to educate patients with data driven facts and provide the therapies that were learned at the bedside while patients were in the office for a visit. When embarking on this journey the full impact that this knowledge would have on the unit was not realized. Several main topics emerged. As a NP with advanced training understanding the research evidence available increased and augmented confidence in speaking about the modalities. Additionally, phone calls or unscheduled visits in clinic were prevented due to increased clinical knowledge. Lastly, acceptance from not only NPs but nurses increased with regards to integrative oncology and its importance. An increase in acceptance was seen by nurses as well as other advanced practice providers in the unit and more referrals were received. Several colleagues also began to utilize several of the modalities themselves. As time progresses the program has continued to grow and be utilized by more individuals. Future growth of the program includes advanced education in integrative therapies, an improved system for tracking patients and patient and nursing empowerment scores.

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### **PREPARING PATIENTS FOR THE ROAD LESS TRAVELED: FROM CDH1 DETECTION TO TOTAL GASTRECTOMY**

**Brenda Nettles, DNP, ACNP-BC, Johns Hopkins Hospital, Baltimore, MD**

*Category: Screening, Early Detection, and Genetic Risk*

Hereditary diffuse gastric cancers (HDGC) are caused by the inheritance of an autosomal dominant genetic

mutation in the CDH1 gene. Individuals with this genetic mutation have a 70–80% risk of developing gastric cancer in their lifetime. HDGC often originates in the submucosa of the stomach as a discrete foci or a small cluster of disease, and is difficult to detect with standard endoscopic procedures. The International Gastric Cancer Linkage Consortium (IGCLC) recommends prophylactic gastrectomy for individuals between the ages of 20 to 30 years of age that are carriers of this mutated gene, even if there is no pathological evidence of cancer. Patients diagnosed with the CDH1 gene mutations are often unprepared to weigh the potential risks and benefits of proceeding with a prophylactic gastrectomy in order to reduce their risk of developing gastric cancer. A multidisciplinary team of experts in genetics, gastroenterology, pathology, nutrition, medical oncology, and surgical oncology is required to offer each patient a comprehensive clinical evaluation that addresses the complex healthcare needs of this patient population. Pre-surgical counseling is key to prepare patients for the challenges they often face after total gastrectomy including: significant weight loss, dysphagia, bile reflux, abdominal pain, changes in absorption, bowel changes, and emotional distress. Advance practice providers play an important role in helping to ensure patients have access to the resources they need to effectively cope with the physiological and psychological stressors they will experience from the time of diagnosis and throughout surgical recovery and the surveillance that follows.

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#### **IMPROVING SYMPTOM MANAGEMENT FOR ADVANCED DISEASE BY INCORPORATING PRIMARY PALLIATIVE CARE INTO THE PRACTICE OF SURGICAL ONCOLOGY**

**Brenda Nettles, DNP, ACNP-BC, Johns Hopkins Hospital, Baltimore, MD**

*Category: Symptom Management and Palliative Care*

Surgical oncology is a clinical specialty dedicated to providing complex surgical care and ongoing surveillance for patients diagnosed with both local and advanced stages of cancer. Cancer patients diagnosed with advanced disease are living longer due to recent advancements in medical, radiation, and surgical oncology. However, patients and caregivers coping with the challenges of ongoing cancer treatment will require increased access to supportive care and assistance with establishing new goals of care as they navigate the continuum of cancer care. Palliative care is comprehensive approach to addressing the unmet

supportive care needs of patients diagnosed with serious and potentially life-threatening illnesses such as cancer. Primary palliative care is a clinical resource that has been successfully introduced into a variety of clinical settings to ensure patients and caregivers have increased access to care planning, psychosocial support, and symptom management. This level of palliative care has been incorporated into the daily practice of two trained members of the surgical oncology team that work in collaboration with the hospital palliative care team. A physician and nurse practitioner are currently available in this specialty to perform clinical assessments, offer symptom management, and provide assistance with the establishment of goals of care. Patients have continuous access to the healthcare providers that are already established members of their care team, and that serve as advocates during times of critical decision making such as end of life. Patients and caregivers are encouraged to become active participants in the development of the plan care, and are encouraged to openly communicate with their healthcare team to ensure their unmet needs are addressed in a timely manner. Increased access to supportive care and advanced care planning have been linked to improved symptom management and increased satisfaction with patient care. Patients and their caregivers are provided with the resources they need to achieve a better quality of life while living with an advanced cancer diagnosis.

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#### **HOW TO CARE FOR BREAST CANCER SURVIVORS?**

**Lori Ranallo, RN, MSN, CBCN®, APRN-BC, University of Kansas, Westwood, KS**

*Category: Survivorship*

There will be an estimated 266,000 new cases of invasive breast cancer diagnosed in 2018; about 63,960 new cases of carcinoma in situ will be diagnosed. About 40,900 women will die from breast cancer. Survival of those diagnosed with cancer and living 5 years or more is projected to increase ~37% in the next 10 years. This increase in surviving breast cancer is driven by advances in early detection and improvements in cancer treatment. Early stage breast cancer survival rate is over 80%. Due to these advances and our aging population, 75% of cancer survivors will be older than 65. These patients tend to have multiple chronic diseases and poorer physical functioning; when coupled with a cancer diagnosis this leads to more complex health issues. How do we offer care to this unique population of patients? We must partner

with our primary care colleagues and prepare our patients for the issues that could arise as a result of their diagnosis, treatment and survival of cancer. During this presentation you will learn about the unique sequelae related to breast cancer treatment and strategies to help patients transition from oncology care to primary care.

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### **SEXUAL AND EMOTIONAL LIFE EXPERIENCE OF MEN WITH HEAD AND NECK CANCER: A QUALITATIVE STUDY**

Ricardo Sant'Ana, MD, School of Medical Sciences, University of Campinas, Campinas, and Hospital Sírio-Libanês, Brasília; João Paulo Zerbinati, MD, School of Philosophy, Sciences and Letters, University of São Paulo, São Paulo; Maria Eufrasia Faria, PhD, School of Medical Sciences, University of Campinas, Campinas; Carmen Lima, PhD, Faculty of Medical Sciences, University of Campinas, Campinas; Egberto Turato, PhD, School of Medical Sciences, University of Campinas, Campinas; Christine Maheu, RN, PhD, School of Nursing McGill, Toronto, Canada

Category: Oncology Nursing Practice

The objective of the project was to explore the question of the experiences of sexuality by reporting on aspects of the sexual and emotional life of male patients with head and neck cancer in chemotherapy and radiotherapy in a Brazilian public university hospital service. The sample was constructed by intentionality, with subjects sequentially available in the care service, and closed by the criterion of theoretical saturation of information. We conducted semi-structured interviews of in-depth open questions with 12 patients, who were audio-videotaped. Data collection was performed at the radiotherapy outpatient clinic of a Brazilian tertiary and university hospital, from July 2018 to November 2018. Data treatment was submitted to a clinical-qualitative content analysis technique. From the data treatment, four categories emerged: (1) Body sense/lived; (2) Revised affective-sexual body; (3) The elaboration of the body's mourning for a new beginning; and (4) Health care in the sexual and emotional dimensions. The understanding of sexual life experiences is central to the actions of integral health of patients with head and neck cancer. Adds to the list of actions implemented by health professionals, especially in palliative care.

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### **WHAT'S NEW IN CLL—WHAT APRNS NEED TO KNOW FOR MANAGING PATIENTS ON NOVEL**

### **SMALL MOLECULE INHIBITORS IN CHRONIC LYMPHOCYTIC LEUKEMIA**

Molly Smith, BSN, RN, OCN®, AGPCNP, Columbia University Medical Center, New York, NY

Category: Oncology Nursing Practice

The creation of novel small-molecule inhibitors has drastically revamped how we care for patients with chronic lymphocytic leukemia. In the past 5 years there has been a surge in new agents for recurrent and refractory CLL that have either been approved by the FDA or are at the forefront of development in the treatment of patients with CLL. Treatment has shifted from cytotoxic chemotherapy regimens to new novel targeted treatments. These new small molecule and targeted agents have proven to be effective for elderly CLL patients, patients with R/R disease, and patients with poor cytogenetics. These novel treatments are showing improved outcomes, but are also presenting with varying side-effect profiles different from what is typically seen and managed with traditional CLL cytotoxic chemotherapy. APRNs encounter many new challenges for navigating and managing patients on novel targeted therapy and due to the recent paradigm shift in treatment there is a lack of readily available tools and resources for APRNs. This review explores the new small-molecule inhibitors and novel targeted therapies in CLL as both monotherapy and combination therapy and focuses on managing these patients adverse effects and reactions.

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### **ILLNESS PERCEPTION AMONG MELANOMA PATIENTS UNDERGOING IMMUNOTHERAPY TREATMENT**

Yael Steinberg Silman, RN, MPH, Sheba Medical Center-Ella Lemelbaum Center for Immuno-Oncology and Melanoma, Ramat Gan; Alice Hashin Miller, RN, Sheba Medical Center-Ella Lemelbaum Center for Immuno-Oncology and Melanoma, Ramat Gan; Guy Ben Betzalel, MD, Sheba Medical Center-Ella Lemelbaum Center for Immuno-Oncology and Melanoma, Ramat Gan; Sarah ben Ami, RN, MA, Sheba Medical Center, Holon

Category: Oncology Nursing Practice

In recent years, melanoma has become a treatable disease owing to new therapies such as BRAF inhibitors and immunotherapies (anti PD1, anti CTLA4). In order to assist caregivers identify patients in greater risk of developing immune related adverse events (irAE), we sought to examine the relationship between disease perception, social factors and toxicity parameters in Israeli stage III-IV melanoma patients undergoing

immunotherapy treatment. Patients who initiated immunotherapy at the Ella Lemelbaum Institute for Immuno-oncology & Melanoma between May 2018 and July 2019 completed a Brief Illness Perception Questionnaires 7–14 days prior to first dose. This questionnaire aims to assess the cognitive and emotional representations of illness and consists of 8 questions score 0–10 (10 being highest) and one additional open question in which patients were asked to list most important factors they believed caused their illness. The Data were analyzed for correlation between each question to social and toxicity parameters. In addition, a validated composite score was tested for correlation to analyzed parameters. Study was approved by Sheba Medical Center IRB (approval #SMC-15-2411). 45 patients completed the questionnaires. 6 patients did not initiate therapy, leaving 39 evaluable patients. Of the evaluable patients 24 patients were male, 15 female. Median age was 68, range 26–91. 4 patients were stage III, 35 stage IV. Patients with more than 1 child tended to be less effected emotionally by their illness (5.6 for more than 1 child vs 7.3 for 0–1 children,  $p=0.08$ ). Male patients were significantly less concerned regarding their illness (6.3 vs 8.5 for women,  $p=0.04$ ). Patients who had greater understanding of their disease tended to develop more adverse events ( $p=0.06$ ). Analysis of a composite score of the questionnaire vs social or toxicity parameters did not yield significant results. Screening patients according to their social support factor may enable us identify patients at risk for developing irAEs and in need for emotional support. Although no association was demonstrated between illness perception and irAEs incidence, illness perception questionnaires remain an important nursing screening tool.

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#### **DEVELOPMENT AND IMPLEMENTATION OF AN ADVANCED PRACTICE NURSE (APN) LED GERIATRIC CONSULT CLINIC AT A COMPREHENSIVE CANCER CENTER**

Carolina Uranga, MSN, AGCNS-BC, RN-BC, OCN®, City of Hope, Duarte, CA; Leana Chien, MSN, RN, GCNS-BC, GNP-BC, City of Hope, Duarte, CA; Jeanine Moreno, MS, APRN, AGNP-C, City of Hope National Medical Center, Duarte, CA; Simone Fernandes Dos Santos, MD, City of Hope National Medical Center, Duarte, CA

Category: Oncology Nursing Practice

Approximately 60% of patients who are newly diagnosed with cancer are age  $\geq 65$ . The demand for older adult care in oncology is projected to increase to 40%

by 2025. The supply of geriatricians is not expected to meet this demand. Trained advanced practice nurses (APNs) can fill the gap by delivering specialized patient care in multiple healthcare settings. Based on ASCO and NCCN guidelines, a geriatric assessment (GA) should be used in patients aged  $\geq 65$  to identify vulnerabilities not routinely captured in oncology assessments. The purpose of this abstract is to describe the development and implementation of an APN geriatric consult clinic using recommendations from these guidelines, and provide a patient-centered approach to prevent/minimize complications during chemotherapy. The APN-led Aging Wellness Clinic (AWC) addresses the needs of the older adult with cancer through the utilization of the Comprehensive Geriatric Assessment (CGA) and other screening tools. The development and implementation of the clinic included: meeting with stakeholders (CNO, Clinic Managers, IT), presentation of project plan, patient criteria, referral schema, electronic medical record (EMR) screening tools, and allocation of clinic space. This process aims to address both oncology and geriatric needs of the patient. The outcomes are directly applicable to oncology nursing through interventions provided by an APN. Evaluation of project goals are based on specific measures. Patient measures include CGA completion, education, and interventions. Institution measures include referrals to AWC, multidisciplinary team (MDT) made/completed and the impact of interventions on patient and institution. The opening of the AWC supports organizational goals and ANCC Magnet® journey. Implications for nursing practice include: practicing to full scope of licensure, integrating evidence into practice, using technology to enhance clinical care, collaborating with a MDT. Based on the study “Advanced Screening and Treatment for Older Patients with Cancer”, the APN uses the CGA and screening tools to identify geriatric vulnerabilities with the goal to prevent/minimize complications during chemotherapy. CGA integration into the electronic medical record optimizes documentation and data collection. Nurses from all levels (APN, RN, LVN, ACA) screen for mobility, frailty, and chemo-toxicity risk. After review of the CGA, the APN provides education, care recommendations, and collaborates with the MDT (PT/OT/SW/Nutrition/Pharmacy) as needed.

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#### **BRIDGING THE GAP: SUCCESSFUL TRANSITION FOR PATIENTS REQUIRING OUTPATIENT ONCOLOGY TREATMENT WHILE**

## UNDERGOING REHABILITATION IN A SKILLED NURSING FACILITY (SNF)

**Brenda Wilcox, MSN, RN, AOCNS<sup>®</sup>, AGCNS-BC, Duke Raleigh Cancer Center, Raleigh, NC; Karen Preston, MHA, BSN, ACM-RN, CCM, Duke Raleigh Hospital, Raleigh, NC**

Category: Coordination of Care

Transitioning hospitalized oncology patients in need of chemotherapy and or radiation therapy and SNF placement proved challenging in an environment where patients have historically been unable to obtain these services simultaneously. Previously, patients often chose between initiation of cancer treatment and needed SNF placement. This was due in part to reluctance from SNFs to accept oncology patients in need of outpatient treatment for concerns surrounding bundled absorption of treatment costs, as well as the comfort level of staff in providing care for cancer patients. The purpose of the project was to optimize transitions of care from an inpatient setting to SNF by formalizing processes to ensure that medical and financial needs are met. Additionally, to establish communication and collaboration links between SNF and outpatient oncology facility to prevent readmissions and optimize patient care delivery. An Oncology Clinical Nurse Specialist (CNS) partnered with the director of hospital case management to develop and implement a formalized process to streamline transitions of care for this targeted patient population. The hospital's chief financial officer and SNF administrators were consulted regarding current billing regulations, and a process to proactively identify eligible patients was formalized. Multiple conversations ensued with outpatient oncology staff, as well as SNF nursing and rehabilitation staff, to identify communication and educational barriers. An initiative was rolled out to educate all oncology staff and case management about the communication processes and a mandatory one hour oncology education class was taught by the CNS for staff at the SNF. Pre and post testing was done to evaluate effectiveness of education provided. Specific resource contact lists were distributed and formalized interdisciplinary phone meetings to regularly discuss patient plans of care were established. A comparison will be conducted and reported of pre and post test scores to evaluate effectiveness of SNF education. Data containing readmission rates and numbers of patients to date that have benefitted from this collaboration will also be made available for review. There are many barriers to safe discharge for oncology patients requiring SNF level of care and simultaneous cancer treatment. Development and

implementation of formalized processes to address financial, educational, and communication barriers in order to optimize care has proven effective. Duplication of this effort to enhance care in this patient population is possible.

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## CLINICAL PRACTICE

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### 4 ONCOLOGY NURSE NAVIGATION IN THE INPATIENT SETTING

**Laura Alfonso, BSN, RN, OCN<sup>®</sup>, UCLA Medical Center, Santa Monica, CA**

Category: Coordination of Care

Although Nurse Navigation has grown and evolved exponentially over the years, it still primarily remains an outpatient role. Yet, patients admitted to the hospital experience just as many barriers and needs, if not more, and are more vulnerable than in the outpatient setting. The barriers faced on an inpatient oncology unit involved inadequate patient education and discharge planning. Newly diagnosed patients were not receiving sufficient education regarding their diagnosis and treatment, resulting in uncertainty, anxiety, and even unnecessary readmissions. Discharge planning was often left until the day of discharge. This meant that arrangements that require several days to organize, such as authorizations for home health supplies, growth factor, specialty medications, or home oxygen, would delay discharge dates. The purpose of the project was improved HCAHPS scores referring to patients' perception of readiness for discharge/perception of education received, decreased LOS, and increased relationship based care. The Inpatient Nurse Navigator worked with management to establish new role, identify goals, and develop interventions that focused on education and discharge planning. Education interventions included pre-admission information phone call for new patients, specifically tailored education sessions, education folders; documented in EMR. Inpatient Nurse Navigator attended daily interdisciplinary rounds with the entire medical team, provided earlier identification of potential discharge barriers, or complex patient dynamics that could lead to increased LOS. Composed report sheet for medical team and acted as liaison for oncology clinics. Inpatient nurse navigator also arranged growth factor and follow up appointments, provided discharge phone calls to troubleshoot gaps in discharge plan that could lead to readmission. We will

collect and present data before the initiation of the inpatient nurse navigator role and at the 6month point regarding patient satisfaction scores referring to patients' perception of readiness for discharge/perception of education received, decreased LOS, and increased relationship based care. The constant evolution of oncology care affects all aspects of the healthcare system, especially the patient. Inpatient Nurse Navigation is crucial in helping extremely sick patients and overwhelmed families understand and navigate the patient's diagnosis and plan of care. Inpatient nurse navigation has the ability to change clinical practice and impact the patient through their entire continuum of care.

#### 14 **CHANGING THE CULTURE OF INPATIENT MOBILITY: THE EFFECTS OF A MOBILITY TECH IN THE INPATIENT ONCOLOGY POPULATION**

Rebecca Ashburn, RN, BSN, University of Colorado Hospital, Aurora, CO

Category: Oncology Nursing Practice

Literature surrounding mobility in hospitalized patients suggests decreased mobility is extremely common. On average, 83% of patients' hospital stays are spent lying in bed. The literature acknowledges mobility as a key aspect of survivorship in the oncology population. There is little research on how to implement programs to promote mobility among oncology patients. As direct-care providers of these hospitalized patients, nurses are in a critical position to effect this change. The main purpose of this project was to increase patient mobilization. The secondary purpose was to decrease missed cares such as patient weights, bathing, mouth care, and linen changes suspected from decreased mobility. With unit/hospital leadership backing, a full-time mobility tech position was added to the Oncology and Bone Marrow Transplant units. Mobility techs were interviewed/hired from the current Certified Nursing Assistant staff due to familiarity with the oncology population. Nursing/Physical Therapy (PT) staff trained mobility techs using both didactic and hands-on training. An initial competency assessment tool was created to define the job position. Potential patients for increased ambulation were selected from chart reviews, staff input, and PT feedback. Pre/post surveys were collected from staff measuring perception of mobilization. Chart audits regarding mobilization rates and missed cares were completed over a 5-month period. Post survey data demonstrated a 41% increase in staff's perceived

ability to meet patients' ambulation requests and a 40% decrease in nursing's perception of not having time to ambulate patients. 97% of staff found mobility techs helpful all or most of the time. Oncology chart audits showed the average number of mobility sessions/patient/day increased from 0.46 to 1.9 while the BMT unit average increased from 2 to 2.5. For Oncology and BMT units respectively, bathing increased 33% and 1%; linen changes increased 53% and 33%; mouth care increased 40% and 20%; daily weights increased 6% and 34%. Literature supports that decreased mobility decreases the activities of daily living (ADLs) a patient experiences while in the hospital. This project emphasizes the impact a specially trained mobility tech can have on patient ambulation and ADLs on a medical-surgical oncology unit. This nurse-driven initiative can be implemented in other oncology inpatient settings to optimize mobility for oncology patients.

#### 16 **PICC INSERTION DRESSING PROTOCOL FOR THE HEMATOLOGICAL ONCOLOGY PATIENT: A COMPARISON OF BIOPATCH® AND STATSEAL®**

Miranda Ayala, RN, BSN, Presbyterian/St. Luke's Medical Center, Denver, CO

Category: Oncology Nursing Practice

In the Hematological Oncology patient population, there is an increased risk for bleeding and infection due to the nature of diagnoses and treatments. On day one of diagnosis, PICC lines are often placed in preparation for multi-regimen treatment. Bedside nurses noted PICC line dressings with Biopatch were frequently changed before the standard dressing change due date (7 days post insertion) due to bleeding, creating an increased risk for CLABSI. Therefore, nursing inquired if StatSeal could be placed upon PICC insertion instead. The objective was to investigate if placement of StatSeal instead of Biopatch at PICC insertion would keep dressings intact for 7 days without increasing the rate of Central Line Acquired Blood Stream Infection (CLABSI). The nursing team challenged the existing standard of practice to use Biopatch upon insertion and started a trial to place StatSeal when the patient was bleeding. If there was no bleeding upon insertion, Biopatch was placed. From November 2017–April 2018, 39 PICC line dressing changes were followed after insertion. Eight of nine patients with StatSeal did not require premature dressing changes. Largely, StatSeal dressings stayed intact for 7 days, whereas 80 percent (24 of 30) dressings with Biopatch required a premature



dressings change. On average, Biopatch dressings required a dressing change 2.5 days after insertion to due to bloody saturation, even though patients were not actively bleeding during insertion. Additionally, there was not an increased incidence of infection using StatSeal instead of Biopatch for the inserted PICCs. Previously, no evidence had been published to indicate the use of StatSeal instead of Biopatch on PICC insertion for infection prevention. After this trial, practice standards were changed to use StatSeal prophylactically for all PICC insertions. Upon implementing this change, the unit had zero incidents of CLABSI for one year—March 28, 2018 to March 28, 2019—which is the record low in the history of this Oncology Acute Care Unit.

## 19

### CONNECTING ON A CELLULAR LEVEL

**Brittney Baer, RN, BSN, Vanderbilt University Medical Center, Nashville, TN**

*Category: Coordination of Care*

With the increase in Immune Effector Cell (IEC) technology in both research and clinical settings, clinicians are challenged with the task of treating acute known adverse events, including cytokine release syndrome (CRS) and IEC-associated neurotoxicity syndrome (ICANS), along with the determining and managing long-term complications of IEC therapies, many of which are unknown. The purpose of the project was to implement a streamlined process for treating acute adverse events, such as CRS and ICANS, while also creating a vision for the long-term care needs of patients who have receive IEC therapies, which requires a specialized approach that differs from stem cell transplant/hematology patients. Interventions: (a) Initiate a standardized protocol for early intervention of treatment for CRS and ICANS with recommendations by the ASTCT (American Society of Transplant and Cellular Therapy); (b) create an institutional framework for an IEC therapy long-term follow up clinic for; and (c) collect data on long-term adverse events post-IEC therapy and subsequently develop a standardized approach to appropriately diagnose and treat this patient population. The logistics of treating a patient with IEC therapy through clinical trials has helped standardize the process with commercial therapies. Through IEC clinical research, acute care of adverse events has informed clinical care with commercial products and these lessons will inform long-term follow up care of this patient population. The need for a dedicated long-term IEC follow up clinic, with specialized clinicians, has been identified to appropriately follow

and treat side effects as needed. The ever-increasing amount of data on patients that have received IEC therapies will continue to shape how these patients are followed in the future. Focus on the long-term needs of IEC therapy patients will include: immunizations, hypogammaglobulinemia, HIV/other viral reactivation, increased infections, etc. The vision of creating a long-term follow up clinic with dedicated clinicians to help create a standardized approach to surveillance of IEC patients post-therapy is undergoing feasibility assessment and construction. The integrated approach to implementing clinical trials processes within the commercial IEC environment has helped shape the way we treat and follow up with this patient population. With the lack of long-term data on late breaking side effects that may arise, these IEC patients should be followed by a specialized team/clinic to increase positive patient outcomes.

## 20

### DELIVERING OPTIMAL CARE IN THE AMBULATORY ONCOLOGY COMMUNITY SETTING; HOW DO YOU MAKE IT HAPPEN? THE EXPERIENCES OF TWO NEWLY OPENED COMMUNITY BASED INFUSION CENTERS

**Boris Bakanov, RN, MPH, OCN®, Mount Sinai Health System, Brooklyn, NY; Karen deVries, RN, OCN®, CBCN®, Mount Sinai West/St. Luke's, NYC, NY; Lydia Clark-Sumpter, RN, Mount Sinai Health System, New York, NY; Ethel Tan, RN, Mount Sinai Health System, Brooklyn, NY; Olga Gorodetskaya, RN, Mount Sinai Health System, Brooklyn, NY; Toby Bressler, PhD, RN, OCN®, Mount Sinai–Mount Sinai Health System, New York, NY**

*Category: Oncology Nursing Practice*

More patients than ever experience difficulty navigating the complexities of the U.S. healthcare system. Usually a primary care physician, nurses, pharmacists, front desk associates, social worker and prior authorization team work together to provide patient care, but no one really talks to the patient. Treatments are now transitioned to the outpatient center; allowing patients to receive chemotherapy, biologics, blood products and supportive care without being admitted and traveling. Simply designed relatively small-sized community-based family oriented centers utilizing diverse staff create less barriers for care, easy access to treatment facilities and enables patients to receive these treatments in their communities promoting more quality time for patients' other concerns. The purpose of the project was to describe the implementation of guidelines, procedures and treatment protocols utilizing autonomy

and shared-decision making with the infusion nurses at our two community based Infusion centers to assist staff to adapt to a growing population and provide quality care. Review of scheduling by Assistant Nurse Manager to optimize schedule and assure orders are in place and signed. Providing comforts measures such as snacks, art and pet therapy contributes to a healing environment. The implementation of optional lab draw day before treatment to expedite wait time for delivery of medications. The consistent review of patient satisfaction scores has been favorable over this past year, with an increase in a patient experience scores above the national average. We continuously review the wait time to ensure minimal delays and optimizing of our chairs to capacity. It is our observation that with the utilization of these interventions as well as addressing patients psychosocial and emotional issues patients have become more invested in their care and decision making. Patient satisfaction scores have improved and wait times have decreased since implementing these interventions. Utilizing autonomy and shared-decision making with the infusion nurses at our two community based Infusion centers is essential for the staff to adapt to a growing population and provide quality care. Future ideas include utilization of volunteers and nursing students to sustain our approach to achieve patient-centered quality care.

## 22

### **IMPACT OF SURVIVORSHIP EDUCATION DURING THE 4–6 WEEK FOLLOW-UP VISIT ON SELF-EFFICACY FOR DISEASE MANAGEMENT AND PATIENT SATISFACTION IN CANCER PATIENTS FOLLOWING RADIOTHERAPY TREATMENT**

**Brooke Balun, MSN, APRN-BC, AOCNP<sup>®</sup>, Northside Hospital Cancer Institute, Atlanta, GA; Dawn Hayes, PT, PhD, Northside Cancer Institute, Atlanta, GA; Donna Meyer, BSN, MS, Northside Hospital Cancer Institute, Atlanta, GA; Emily Voigt, RN, BSN, OCN<sup>®</sup>, Northside Hospital Cancer Institute, Atlanta, GA**

**Category: Survivorship**

Four components of survivorship care are essential: Prevention and detection of cancer, cancer surveillance, intervention for long-term/late effects, and coordination of care between providers. 1 mechanism that has existed for several years is providing the patient with a survivorship care plan consisting of a summary of the disease and treatment along with a follow-up plan. Many institutions today continue to struggle with implementation barriers including electronic generation of documents, reimbursement issues, efficient

use of staff resources, and time required to personalize the delivery of survivorship care plan. Frameworks have been proposed that include outcomes on delivery, symptom management, satisfaction, coordination of care, and knowledge; however it remains unclear whether survivorship care plans to improve patient outcomes. The unclear consensus of survivorship care plan impact and best method for delivery supports the need to conduct a pilot study highlighting implementation processes and examination of desired patient outcomes. The objective of our pilot study was to determine the impact of survivorship education provided by the radiation oncology nurse to women diagnosed with breast cancer who have completed radiation therapy. Results were determined by self-reported confidence in disease management and satisfaction by the patient. The patients' diagnosed with breast cancer and who meet survivorship eligibility criteria were offered survivorship education during the 4 to 6-week post-radiation follow-up visit. Pre-testing consisted of Self-Efficacy survey. The eligible patient received survivorship education provided by a radiation oncology nurse. Education consisted of symptom review, discussion about current treatment, and recommendations for support services referral. A post-test was conducted immediately following the visit consisting of self-efficacy questions, number of referrals addressed by patient via self report, and patient satisfaction. 38 radiation therapy breast patients participated in the pre-/post survivorship study. Statistically significant ( $p < .05$ ) improvement was noted with self efficacy outcome measures indicating the patient perceived improved self-confidence with disease self management. Additionally, statistically significant improvement was noted in patient's perception of understanding of cancer survivorship after the visit. This study provides evidence that nursing staff and providers positively impact cancer survivors' self-confidence and understanding of disease management through the delivery of survivorship education and motivates staff to provide effective face-to-face delivery of survivorship care plans.

## 25

### **ASKING BEFORE ACCESSING: INCREASING PATIENT SAFETY, WHILE DECREASING CENTRAL LINE UTILIZATION**

**Jennifer Baumert, MSN, RN-BC, OCN<sup>®</sup>, CHI Health Lakeside, Omaha, NE; Carly Hornig, MSN, RN, CHI Health Lakeside, Omaha, NE**

**Category: Oncology Nursing Practice**

Despite no specific change in nursing practice, the Oncology Unit noticed a dramatic rise in Central

Line Associated Bloodstream Infections (CLABSI) over the course of a calendar year. A taskforce was formed by direct care nurses active in quality improvement process along with expert consultation from Infection Prevention and support from Nursing Administration. With no relevant research to support significant CLABSI reduction via limited access, this group worked to implement a practice and culture change, with a goal of decreased central line infections. Multiple publications were consulted for evidence based guidance regarding CLABSI reduction, however there was minimal research regarding not accessing ports as the main parameter for change. Despite no change in practice, the Oncology unit went from minimal CLABSI's, to eight in a short period of time. No consistent abnormality was discovered in any drill downs to contribute to this dramatic rise in CLABSI's. A culture and practice change was implemented, which lead to a 54% reduction in six months, and a 100% reduction within 13 months. The CLABSI task force developed safeguards and educational components to help prevent further CLABSI's, including daily central line audits; changing CHG 'bath' process; implementing a 'last resort' process regarding accessing of central lines, with use of a dedicated algorithm; and education and collaboration with Hospital Medicine Physicians. Following creation of a CLABSI taskforce, the Oncology Unit implemented several new practices. New education for inpatients and their nurses, along with aligning practices demonstrated a significant decrease in Central Line infections on the Oncology unit. (The Oncology unit has now gone over 900 days CLABSI free) These initiatives went hospital wide following this unit's success, resulting in over 850 days hospital wide with only 1 CLABSI. With administrative support, and strong unified team atmosphere, direct care nurses can be the catalyst for change, leading to significant reduction in infection rates and a higher quality of safe patient care.

## 26

### ONCOLOGY PATIENT EDUCATION AND STRESS REDUCTION

**Kaitlyn Baumgardner, BSN, RN, UMKC School of Nursing, Kansas City, MO**

**Category: Patient Education and Safety**

Approximately 1.7 million new cancer cases were diagnosed in 2018. With a new diagnosis of cancer, an individual can experience anxiety and stress about the illness and chemotherapy treatment plan. The purpose of this evidence-based practice, quality

improvement initiative is to implement an educational meeting with a nurse practitioner prior to first time intravenous chemotherapy to decrease stress and distress. A patient education meeting with the nurse practitioner to discuss chemotherapy and the individualized treatment plan will occur with 50 adults in fall 2019. The intervention will include evidence-based handouts on the chemotherapy regimen and side effects, and a verbal discussion with the patient and family or friends. Pre- and post-intervention distress will be compared in the one cohort. The self-reported distress will be measured by the National Comprehensive Cancer Network Distress Monitoring Tool. The anticipated improvement is a decrease in patient stress and distress associated with a new cancer diagnosis and chemotherapy. If the results are favorable, then the sustainability of the educational meeting as a standard of care is realistic, and quality of life may be improved for the adult receiving chemotherapy. The nurse practitioner can also charge for an educational visit, thus furthering the sustainability.

## 31

### EFFECTIVENESS ANALYSIS OF CENTRAL CATHETER SALINIZATION VERSUS MONTHLY HEPARINIZATION

**Iara Bertrami, RN, Chemotherapy Center Unimed Campinas, Campinas; Marcelo Lima, RN, MSc Student, Ambulatory Chemotherapy Center Unimed Campinas, Campinas; Silvia Barbosa de Sá, RN, Ambulatory Chemotherapy Center Unimed Campinas, Campinas; Dayane Mara de Souza, RN, Ambulatory Chemotherapy Center Unimed Campinas, Campinas**

**Category: Oncology Nursing Practice**

Care with cancer patients requires safe venous access, used for various indications such as chemotherapy treatment, infusion of blood products and support drugs, and access to blood circulation for clinical monitoring. The fully implanted central catheter is superior to other central catheters due to its safety in infusion and its maintenance of permeability should be performed with each use or each month. Heparin is an anticoagulant drug used as a potentially dangerous medicine with an increased risk of patient injury following a failure in the process of use. The maintenance of central catheter permeability for a long time was performed through heparinization, however, due to risks inherent to the drug and the proof of practice of salinization technique with 0.9% saline solution, a practice was replaced. The purpose of the project was

to evaluate the effectiveness of monthly salinization of fully implanted central versus heparinization. Data was collected between 2013 and 2018 of complications in the fully implanted central catheter. We evaluated the number of catheter obstruction and infection in a private chemotherapy center in the interior of São Paulo. From 2013 to 2016, to maintain the permeability of these catheters, the monthly heparinization technique was used, replaced in 2016 by the monthly salinization. During the analyzed period in which heparinization of the catheter was used from 2013 to 2016, there were 21 occurrences of obstruction loss and 10 occurrences of infection, with 8 occurrences in 2013, 16 in 2014 and 7 in 2015. In 2016 the establishment of a monthly salinization technique to maintain central catheter permeability was implanted in an institution, decreasing considerably the complications. The total number of loss occurrences due to obstruction was 7, of which 5 cases in 2016, 1 in 2017 and 1 in 2018. Already the occurrences of infection totaled two cases, 1 in 2016 and 1 in 2018. Salinization at each catheter use or monthly to maintain the permeability of the fully implanted catheters is shown to be superior to the heparinization practice, which resulted in a 66% decrease in complications with the fully implanted central catheter after the change in care practice, also being a barrier that eliminates the possibility of errors related to administration of heparin.

### 35 ADVOCACY IN THE AGE OF ADVERSITY: EDUCATING ONCOLOGY NURSES AT THE CHAPTER LEVEL

Roxann Blackburn, MSN, RN, OCN®, NEA-BC, Houston Oncology Nursing Society Chapter, Houston, TX; Alec Stone, MA, MPA, Oncology Nursing Society, Washington, DC; Millie Toth, MS, RN, AOCN®, UTMACC, Houston, TX; Laurie Sturdevant, RN, CPHQ, OCN®, MD Anderson Physician Network, Houston, TX; Loretta A. Williams, PhD, APRN, AOCN®, OCN®, University of Texas MD Anderson Cancer Center, Houston, TX; Terry Throckmorton, PhD, RN, Capella University, Houston, TX

Category: Professional Development

Advocacy, a core principle of nursing practice and patient care, is an organizational pillar of the Oncology Nursing Society (ONS). A large urban chapter of ONS in the Southwestern United States worked closely with the national organization to plan and hold a successful educational event that taught area nurses ways to become more involved in local, state, and federal

healthcare advocacy. The legislative committee of an ONS chapter reached out to the ONS Director of Public Policy, to create a one day workshop attended by more than 65 area nurses that included educational objectives, handouts, speakers, continuing education credits, and breakfast and lunch. Efforts were made to create a fair and balanced program with an emphasis on the ways nurses can use their unique perspective to become involved in advocacy at the chapter level. Speakers included the Director of Public Policy from ONS, area nurse leaders with experience in nurse advocacy, and state and federal elected officials from both major parties. Financial support to offset costs of the event was obtained through corporate sponsorship. Many lessons were learned during the planning and execution of this event. This presentation will offer an outline that other ONS chapters may use to plan a similar event for their members. Content will cover the vision, planning, and participant responses which were overwhelmingly positive, as well as the next steps the chapter plans to take in order to capitalize on nurse interest in the area of healthcare and nurse practice advocacy. This event, one of the first of its kind in the country, is consistent with the mission and values of ONS. Its success can be viewed as a template for other chapters to teach members ways to use their voices to help our organization achieve its advocacy priorities in public health policy.

### 40 ENHANCED RECOVERY AFTER SURGERY FOR LAPAROSCOPIC/ROBOTIC HYSTERECTOMY PATIENTS

Susan Bohnenkamp, MS, RN, ACNS-BC, CCM, Banner University Medical Center, Tucson, AZ

Category: Coordination of Care

Enhanced Recovery After Surgery (ERAS) or “fast track” are pre, intra and postoperative interventions that improve care for surgical patients. The ERAS protocols target interventions to increase patient satisfaction and functional recovery, while also decreasing surgical site infections, opioid use, post-op complications, length of stay (LOS), readmissions and cost. The project was conceptualized within the gynecology/oncology surgery unit’s bimonthly journal club and the published protocols reviewed. The purpose was to answer the question, “In laparoscopic and robotic hysterectomy gynecology/oncology patients, how does the use of an ERAS protocol as compared to current practice affect length of stay, morphine milligram equivalents and patient experience?” Interventions were incorporated across the

trajectory of care: clinic; education packet; nutrition consult & supplement distribution; pre-op; carb loading drink 2–3 hours before surgery; clear liquids up until 2 hours before scheduled surgery time; intra-op; decreased fluids; local anesthetic at incision site; post-op; scheduled ketorolac, gabapentin, acetaminophen; early mobility including PACU transfer to floor in a wheelchair; all meals up in chair, walk 8 times a day; incentive spirometer (10 breaths an hour while awake); head of bed elevated; early removal of Foley catheter; chew gum; and saline lock after 600 ml of PO fluid. Twelve patients were included in the project over 3 months. LOS decreased from 32.63 hours to 26.48 hours (18.8% reduction). MME decreased from an average of 138 MME to 114 MME (18% reduction). Patient experience was positive. Zero readmissions. The use of an ERAS protocol for laparoscopic/robotic hysterectomy patients decreases length of stay and opioid usage plus positively impacts the patient experience. The nurse plays an integral part in this program. Carbohydrate loading, early nutrition plus specific interventions in pre, intra and postoperative may improve care for gynecologic oncology patients.

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#### **USE OF NEOPRENE MASK—CASE REPORT: PATIENT AWARENESS DURING OR RADIOTHERAPY TREATMENT**

**Tance Botelho, Grupo Oncoclinicas, São Paulo**

*Category: Oncology Nursing Practice*

Angiosarcoma is a rare and aggressive subtype of vascular sarcoma that affects the head and neck region in more than half of the cases especially the scalp. The case report referred to a 78-year-old male patient diagnosed with scalp epithelioid angiosarcoma with scattered lesions. When diagnosing treatment with systemic chemotherapy and due to a good chemotherapy response concomitance with local radiotherapy throughout the scalp was indicated by IMRT-RapidArc associated with 5mm neoprene mask and immobilization mask. Radiotherapy is one of the forms of treatment particularly the irradiation of the entire scalp due to its infiltrative characteristics and conventionally it uses the combination of photon and electron beams in lateral fields with wax bolus or superflab for dose superficialization. Due to the convexity of the entire scalp this type of bolus has disadvantages in daily reproducibility and air gap formation which may interfere with dose distribution. However, a treatment technique already described in the literature was chosen through IMRT which allows a more precise concave dose distribution, with

protection of adjacent structures (brain) associated with a 5mm thick Neoprene mask for bolus effect. Therefore, the patient had to wear both masks (Neoprene + immobilization) during the treatment day which is the great challenge of this new form of treatment. The main of this report was to demonstrate the patient's tolerance to the technique employed in face of the daily positioning challenge made by the nursing staff and radiotherapy technicians so that the treatment could be successfully completed. Finally, it was evident that this innovative technique despite its challenges had optimistic results. The nursing team played a fundamental role in sensitizing this patient as well as the technical team in managing it daily.

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#### **HERDING THE CATS: COORDINATING AND STANDARDIZING NURSING CARE THROUGHOUT AN ELEVEN SITE ONCOLOGY PRACTICE**

**Rebecca Bowers, RN, BSN, OCN®, Alliance Cancer Specialists, Philadelphia, PA; Carol Blecher, MS, RN, APNC, AOCN®, CBCN®, Alliance Cancer Specialists, Philadelphia, PA**

*Category: Oncology Nursing Practice*

In the past year there was a change in the leadership team at Alliance Cancer Specialists. Prior to that time the nurses functioned independently within their individual practices, adhering to standards or not as they decided, due to a lack of direction and administrative guidance regarding this issue. The new leadership team chose this opportunity to grow and find ways to improve the quality of care by applying ONS standards to nursing care throughout the organization, unifying practice. The purpose of this project was to standardize nursing practice across the sites providing quality nursing care throughout the practices based on ONS Guidelines. Step one was to get all of the nurses Chemotherapy Credentialed through the ONS Chemotherapy/Biotherapy Program, as many of the nurses had taken the course and had never renewed their provider status. The organization purchased vouchers and required all RNs to take the course and receive/maintain their provider status through the ONS. Policy was developed and implemented to assure annual competency assessment as well as renewal every two years. Next Policies and Procedures were written based on the ONS Chemotherapy and Immunotherapy Guidelines as well as ASCO/ONS Chemotherapy Administration Safety Standards and introduced into practice. As the policies were enacted the documentation in the EMR was

adapted to reflect the new practices. All nurses have passed the Chemotherapy/Biotherapy Course and copies of the certificates are maintained by human resources. The staff is required to renew their credentials every two years, submitting certificates of completion and provider cards. They are also required to complete annual competency assessments per ONS standards. Chart audits were instituted to evaluate adherence to the new standards. The leadership team at Alliance Cancer Specialists saw the need to create practice change and to unify the organization by applying ONS Guidelines and ASCO/ONS Chemotherapy Safety Standards to nursing practice throughout the eleven sites within the organization. Through a gradual roll out of policies and procedures supported by staff education and engagement the organization began to grow, improve and unite. Leadership doors have reliably been open, and the staff is encouraged to discuss concerns and the issues they are encountering during the implementation of the new practice patterns. The biggest hurdle has been having the nursing staff recognize the need for change, and incorporating changes into daily practice.

#### 46 **THINKING THE UNTHINKABLE: ELDER ABUSE IN CANCER CARE**

Deborah Boyle, MSN, RN, AOCNS®, FAAN, Advanced Oncology Nursing Resources, Huntington Beach, CA

Category: Oncology Nursing Practice

Cancer is a disease of aging. Nearly two-thirds of all diagnoses occur in older adults over the age of sixty-five. Additionally, the majority of the most common malignancies (i.e., prostate, breast, lung, colorectal) are diagnosed in older adults. Of special note is that the future portends a significant increase in the number of older Americans based on the aging of the 'Baby Boomer' cohort. These projections will be accompanied by an exponential rise in cancer diagnoses. Elder abuse is an acknowledged corollary of advanced age. Annually, it is estimated to occur in one in ten U.S. adults aged 60 years and older. Despite this alarming prevalence, elder mistreatment remains under-reported. Because of cancer's predominance with advanced age, it is important for oncology nurses to be vigilant for signs of abuse in those they care for. However, a comprehensive search performed by two academic librarians revealed no existing literature on elder abuse within cancer care. The purpose of this presentation is to provide an overview of key elements of elder mistreatment with the goal of translating existing evidence to oncologic clinical settings. The five major forms of

elder mistreatment will be characterized: physical abuse, sexual abuse, emotional/psychological abuse, financial abuse/exploitation, and caregiver neglect. Victim, perpetrator, and setting context variables all contribute to the occurrence of this multifocal and complex phenomenon. Prominent indications within these each of these three constructs will be described. Geriatric oncology high risk profiles will then be proposed based on the application of generic elder adult evidence. Lastly, based on consultation with leadership from a large county-wide elder abuse advocacy organization, two real-life oncology-specific exemplars will be presented. It is critical to escalate awareness of this societal phenomenon such that assessment initiatives are implemented broadly within cancer care. Oncology nurses are key to this awareness due to their primary and ongoing contact with patients and families in ambulatory, acute care, and home health settings. Intervention within this novel realm of patient care represents a unique opportunity for oncology nurses to engage in advocacy efforts for a vulnerable and underserved patient population.

#### 47 **HOW DOES RAMPING PACLITAXEL INFLUENCE HYPERSENSITIVITY REACTIONS?**

Jessica Branson, DNP, RN, CNS-BC, OCN®, UW Health, Madison, WI

Category: Oncology Nursing Practice

Paclitaxel is a chemotherapy agent known to cause hypersensitivity reactions in patients naïve to the agent; thus, a large Midwestern adult cancer center's standard practice has been to ramp the first and second infusions of paclitaxel based on the belief that it reduces the incidence and severity of hypersensitivity reactions. Ramping is a practice where the infusion begins at one rate and is incrementally increased to the goal rate. Integration of intravenous large volume pumps with the electronic medical record created an opportunity to critically evaluate how several chemotherapy agents were administered, including paclitaxel, leading to an evidence-based practice project exploring the administration practices of paclitaxel. The purpose of this evidence-based practice project was to explore the question: How does ramping of paclitaxel during the first and second doses compared to no ramping, influence the incidence or severity of hypersensitivity reactions? A literature review was conducted in CINAHL and PubMed databases. The package insert provided by the pharmaceutical company was also reviewed. No evidence to support or disprove the practice of ramping the

first and second doses of paclitaxel was found. Subsequently, the ONS Communities listserv posts related to paclitaxel administration were reviewed to benchmark practice at other organizations. Considering the lack of evidence indicating ramping was neither evidence-based nor necessary, in September 2019, the practice was discontinued at the cancer center. Pre-implementation data regarding incidence and severity of hypersensitivity reactions was extracted for all first and second paclitaxel infusions administered in 2018. Post-implementation analysis will be done by prospectively reviewing all first and second paclitaxel infusions for 12 months. The incidence and severity of hypersensitivity reactions will be compared and reported as a number for first and second doses respectively. Nurses can use this evidence to guide their practice on how best to safely administer first and second infusions of paclitaxel. This project will provide preliminary evidence comparing ramping to no ramping of first and second infusion of paclitaxel and the influence the practice has on the incidence and severity of hypersensitivity reactions.

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### **A PSYCHOEDUCATIONAL SERIES FOR CAREGIVERS: WHAT THE CAREGIVERS HAVE TAUGHT US**

**Ann Breen, MN, RN, OCN<sup>®</sup>, Seattle Cancer Care Alliance, Seattle, WA; Tammy Weitzman, MSW, LICSW, Seattle Cancer Care Alliance, Seattle, WA**

**Category: Psychosocial Dimensions of Care**

Caring for a loved one is extremely challenging and directly impacts every aspect of the caregiver's well-being and quality of life (physical, emotional, social and financial). Not surprisingly, caregivers are at risk to experience physical and emotional distress. Interventions that lower stress and enhance adaptive coping skills can substantially improve caregiver well-being. Nurses and social workers spend more time providing patient/family centered care than other healthcare providers. They play a significant role and are uniquely positioned to identify and ameliorate caregivers' distress. The Caregiver Series is an innovative psycho-educational intervention co-led by a nurse and a clinical social worker at an academic cancer clinic. It provides ongoing education and support by utilizing in person and telehealth technology. Attendance has increased with a loyal core group and a telehealth option. Monthly meetings are offered with rotating topics (stress management, communication, family relationships, caregiver self-assessment and self-care). The series provides a space for caregivers

to learn and share information and coping strategies concerning challenges and positive experiences. Presentation topics are highly relevant for caregivers facilitating skill development and adaptive coping tools. Caregivers learn to recognize and manage their distress while improving the caregiving experience. The group is open to all caregivers who help cancer patients. Descriptive Data collected from each meeting. Themes that emerged: (1) Remain physically active; (2) Utilizing counseling (3) Maintaining social interactions decreases isolation; (4) Maintaining boundaries is crucial to survival (saying No); (5) Taking breaks and caring for one's self; (6) Use Cancer clinic resources; (7) Respite with relaxation, meditation, and distraction allow more effective caregiving; (8) Online apps and other resources can be very useful. 40% of the caregiver-participants (CP's) emphasized maintaining boundaries as very important to their coping, 18% CP's recognize the importance of self-care, 12% specifically identified physical activity as a helpful coping strategy 6% felt utilizing clinic resources as helpful and 6% benefited from use of distraction. Participants value this intervention and have found the monthly class both educational and supportive. Using technology has allowed caregivers to connect with experience remotely by removing geographic barriers and promoting local, regional, national, and international participation. We have had caregivers call in from Europe.

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### **INFUSION CLINICAL STAFF DRIVEN HEIGHT/WEIGHT PROCESS IMPLEMENTATION TO IMPROVE CHEMOTHERAPY SAFETY**

**Amanda Brock, RN, MSN, MBE, OCN<sup>®</sup>, Penn Medicine, Philadelphia, PA; Mary Pat Lynch, MSN, Penn Medicine, Philadelphia, PA**

**Category: Coordination of Care**

Oncology nurses stand at the forefront of chemotherapy safety, playing a key role in preventing errors. Safety measures include computerized order entry, pharmacist and nurse verification, dosing limits, verification of patient identity and nursing certification in chemotherapy administration. Despite much attention and effort, errors in the course of chemotherapy administration remain problematic. This abstract describes a replicable workplace initiative to ensure accurate patient measurements and therefore, accurate dosing. The American Society of Clinical Oncology/Oncology Nursing Society Guidelines recommend: (a) 1.6.3. Weight is measured at least weekly when present in the health care setting. (b) 1.6.4.

Height is measured at least weekly when present in the health care setting and when appropriate to the treatment population. The purpose of this project was to establish a process for accurate heights and weights on the day of treatment. Infusion Clinical nurses and Medical Assistants partnered together to re-design the workflow to facilitate accurate and timely measurement of height/weight and vital signs prior to patients' infusion encounter. The use of a standard scale and stadiometer provides consistency. Pre-implementation, up to 5 different scales with attached stadiometers were available for use. RN-trained Medical Assistants are instructed to carefully enter the height/ weight into the EHR to avoid transcription errors and to immediately report weight/ height discrepancies to the charge RN. Prior to the implementation of the work flow re-design, 3% of patients had a documented height and weight during their infusion encounter. The majority of heights and weights were being documented in the clinic visit, and not owned by infusion. Of these 3% with height/ weight documented, 20% had "stated" height/weight entered into the EHR, and 80% had weight but not height documented. Post re-design, 90% of patients had weight documented in EHR during their infusion encounter. 56% had height and weight documented. 0% had a "stated" weight documented.

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### SUSTAINING SAFE PRACTICES FOR THE DELIVERY OF ORAL CHEMOTHERAPY

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*Category: Patient Education and Safety*

A serious safety event related to oral chemotherapy triggered an analysis of the oral chemotherapy refill request process. Using lean methodology, a nursing oral chemotherapy note was implemented as a safety check prior to refilling a prescription request. This note included verification of the correct patient, medication, dosage, refill date, pharmacy, lab results, follow up, and signed consent. Post-implementation results showed challenges with inconsistencies and sustainability of utilizing the oral chemotherapy note. The purpose of this patient safety project was: (a) to evaluate the use of the oral chemotherapy note, (b) identify inconsistencies in the process,

and (c) to develop standard work for completing the oral chemotherapy note. The workgroup, consisting of the Education Specialist, Quality Coordinator and Nursing Leadership, tracked the use of the oral chemotherapy note for all refill requests completed and the defect rate when processing an oral chemotherapy refill request. The workgroup completed observations of nurses utilizing the oral chemotherapy note. Deviations in use of the oral chemotherapy note were evaluated for process improvement and standardization. The nurses were also asked to provide verbal feedback regarding any challenges they had when completing the note or why the note was not completed. Standard work was developed to clearly outline the best practice, and Training Within Industry (TWI) methodology was then used to complete 1:1 training with every nurse that would be expected to follow this practice. Initial use of the oral chemotherapy note proved successful in reducing refill defect rates with a refill defect rate of 0.4% when the note is completed, and a refill defect rate of 3% when the note is not completed ( $p < 0.001$ ). Several inconsistencies in the process of completing the note were found during the observations that prohibited 100% compliance with utilization. These inconsistencies were assessed by the workgroup and addressed during the TWI training. The oral chemotherapy note acts as an effective safety check when utilized properly. Evaluating the utilization of the note after implementation allowed the workgroup to make improvements to the process and eliminate variations which led to workarounds. Developing standard work ensured that all current and future nurses were trained appropriately using best practice to provide the safest care possible when delivering oral chemotherapy.

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### REDUCING LUNG CANCER SCREENING DISPARITIES IN NORTHEAST GEORGIA

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*Category: Screening, Early Detection, and Genetic Risk*

Under served and minority populations in many counties of Georgia have higher rates of tobacco use and increased lung cancer mortality. The same populations also experience additional stigma from providers, friends and family, and the community for continued tobacco use in the presence of known health and socioeconomic consequences. With less than 4% of the eligible insured population receiving low dose cat scan (LDCT) lung cancer screening nationally, the numbers of under insured, uninsured,



and minority populations receiving LDCT lung cancer screenings are even smaller. In Hall County, Georgia, one uninsured patient and few minorities participated in a lung cancer screening in 2018. Barriers like transportation, lack of insurance, paid time off at work, absence of a regular healthcare provider combined with low socioeconomic status reduce the likelihood of the under served receiving lung cancer screenings. To mitigate potential barriers to lung cancer screenings for under served and minority populations in Hall County, Georgia, an American Cancer Society funded project was implemented. The goals of the project were to increase the number of under served eligible candidates in Hall County screened for lung cancer, reduce transportation barriers for screening participants, and provide transportation assistance and rehabilitation services for participants diagnosed with lung cancer through the grant. In collaboration with Good News Clinic in Gainesville, Georgia, a goal of twenty participants was set. During the funding period, February 2019–July 2019, a total of eleven participants were identified and received no-cost lung cancer screening. No cancers or significant incidental findings were identified in the eleven participants. To reduce transportation barriers and to incentivize participants to complete lung cancer screening, participants also received gas cards at the completion of the scan. Although the results were monitored and tracked by an oncology nurse, Good News Clinic provided participants with the results of the screenings. Future project work includes reducing barriers to lung cancer screenings and securing additional screening funding for uninsured and high-risk populations in Hall County, Georgia.

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### **UNCHARTED TERRITORY: IMMUNE EFFECTOR CELL THERAPY IN SOLID TUMORS**

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Category: Oncology Nursing Practice

Immune effector cell (IEC) therapy programs require multiple disciplines and departments to create and implement effectively, including inpatient and outpatient nursing. Prior to 2018, Columbia University Irving Medical Center (CUIMC) was only FACT accredited for Hematopoietic Stem Cell Transplant and since the approvals of Yescarta and Kymriah have

received FDA approval as immune effector cell therapy, CUIMC has become an authorized treatment site as well as FACT accredited for IEC therapy. This has helped pave the way for our Clinical Protocol and Data Management (CPDM-Cancer Center's research) office to open up IEC therapy trials. CUIMC now has 5 actively enrolling chimeric antigen receptor (CAR) T Cell clinical trials and a dozen more IEC therapy in the pipeline. Many of these trials are hematology-related. Our IEC program is managed through the Blood and Marrow Transplantation and Cell Therapy Program, which is seamless for patients with hematologic malignancies. CPDM Research nurses have identified that the transition of these patients between teams requires strong communication to ensure continuity of care and the proper education of interdisciplinary teams. To facilitate this, we will create two formal forms to utilize during hand-off to address these issues and improve patient care: one for the initial hand-off which would be disease-specific and one for the hand-back which would be IEC-therapy specific. For patients with solid tumor malignancies, there is a potential for a lack of continuity of care as the patient transitions from one team to another and back. To mitigate this issue, the CPDM has structured the workflow of our IEC trials so that the screening of potential eligible patients starts with the primary oncologists' team; after a patient is identified, the Cell Therapy Program and dedicated CPDM staff assume care of the patient through IEC treatment and subsequent follow-up until the patient is deemed stable for their care to be transferred back to their referring oncologist. Using a tool similar to SBAR (situation, background, assessment, recommendation), we will implement a tool to include oncologic history, ongoing and prior significant problems, IEC-related adverse events and outcomes (for the hand-back), required follow-up and supportive care regimens, and more.

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### **THE ROLE OF PREDICTIVE AIRWAY CARE IN PREVENTING PULMONARY INFECTION AFTER LAPAROSCOPIC SURGERY IN ELDERLY PATIENTS WITH GASTRIC CANCER**

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Category: Oncology Nursing Practice

Predictive nursing means that nurses actively evaluate and comprehensively analyze and judge patients, predictably take preventive measures and find the response strategy in every link of medical nursing, thus

effectively reducing nursing risks. Lung infection is one of the most common clinical diseases. It is a serious complication after surgery, especially in elderly patients ( $\geq 70$  years old), reduced body resistance, degraded tissue and organ functions, weak resistance to postoperative activities, and increased chances of infection. The low immunity after gastric cancer surgery is a susceptible group of hospital infections. This paper discusses the role of preivision airway care in preventing pulmonary infection in elderly gastric cancer patients after laparoscopic surgery. Since June 2015, the elderly patients who underwent laparoscopic radical surgery for gastric cancer in the same treatment group in our hospital were randomly divided into the intervention group (83 cases) and the control group (75 cases) who received routine care. The clinical performance score, the incidence of pulmonary infection, the length of hospitalization and the relationship with the operation were compared between the two groups. There were significant differences between the intervention group and the control group in symptoms, signs and X-ray scores. There was a statistically significant difference between the intervention group and the control group ( $P < 0.05$ ). The total incidence of pulmonary complications was 9.8% in the intervention group and 18.6 % in the control group. The average length of hospitalization in the intervention group was ( $8 \pm 2.53$ ) days and in the control group was ( $13 \pm 1.64$ ) days. Further stratification showed that the operation time, postoperative pulmonary infection rate and postoperative hospitalization time of total gastrectomy were higher than that of distal gastrectomy. In the different operation method, the intervention group in the total gastrectomy group and the distal gastrectomy group had a statistically significant difference in the time of operation, postoperative pulmonary infection rate and postoperative time compared with the control group ( $P < 0.05$ ) and the difference of total gastrectomy group is more obvious. Predictive nursing can effectively prevent the occurrence of pulmonary complications in elderly patients with gastric cancer after laparoscopic surgery. It is of great significance to improve the prognosis, reduce the length of hospital days and strengthen the individualized nursing management for different surgical methods.

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### **MINDFULNESS BASED INITIATIVES FOR NURSING STAFF—PROMOTING SELF-CARE AND ADDRESSING DISTRACTION**

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**Category: Oncology Nursing Practice**

Mindfulness has been described as “awareness that arises through paying attention, on purpose, in the present moment, non-judgmentally.” Mindfulness Based Stress Reduction (MBSR) is an immersive formal 8-week program teaching meditative practice, stress management, and awareness. Informal mindfulness-based programming has been described as mantra, breathing meditation and other elements influenced from MBSR. Both the formal and informal mindfulness-based approaches for healthcare employees and students has contributed to reduced stress, burnout, and anxiety, and improved problem-focused coping. Given the incidence of unhealthy behaviors, burnout, and stress in oncology nurses, mindfulness is a means of promoting self-care and well-being. The fast-paced and increasingly complex environment of cancer care necessitates skills in focused attention and mindful awareness. Mindful practice by clinicians can be beneficial for both the clinician and patient. A nursing team who participated in an evidence-based immersion at a comprehensive cancer center partnered with the Integrative Medicine department to coordinate informal mindfulness-based programming. This initiative is delivered monthly by a mind-body practitioner to nursing staff. Workshop goals are to increase awareness, management of stress, and to promote self-care and resilience. Participants are recruited from a wide-range of nursing roles. Following participation in the workshop continued engagement of mindful practice techniques is encouraged though promotion of organizational mindful resources that are available electronically, in-person, and virtually. Preliminary post-program evaluations reveal over 95% of participants agreed that they were able to identify mindfulness techniques for use in nursing practice and self-care. Evaluations also endorse awareness in the individual stress response and the need for engagement in self-care. Final presentation will review all post program evaluations. A future focus will be on staff perception of the use of mindfulness techniques in clinical practice (e.g. medication administration, hand hygiene, etc.). Oncology

nurses experience multiple sources of workplace stress which increase the risk of burnout. Informal mindfulness-based interventions offer a cost-effective solution to promote self-care and encourage the use of mindful awareness in nursing practice. With a large-scale goal of enculturation of mindful practice throughout an organization, interventions should be easily attainable, engaging to staff, and useful for application in a busy practice setting.

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### ORAL CHEMOTHERAPY NURSE NAVIGATOR PROGRAM IN OUTPATIENT SETTING

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Category: Oncology Nursing Practice

In practicing at an outpatient Hematology/Oncology clinic, a need for an Oral Nurse Navigator (ONN) was deemed essential to begin. As I talked with our clinic pharmacist, I saw that besides the authorization process that was being done, we had no record of the patients currently on treatment. We also did not have a teaching process in place for our patients, instead relying on the specialty pharmacy to do the teaching. As I looked into the process for starting a patient on an oral chemotherapy and the lack of nurse awareness that some infusion patients were also on an oral chemotherapy agent, I began to develop a program that led to a role for an Oral Chemotherapy Nurse Navigator. The ONN sets up the teaching material and includes an information sheet on the safety of taking oral agents, as well as the drug information and a drug calendar if needed. Once teaching is done and the drug delivered, the ONN follows each patient in a database that is updated with each appointment. As I check the H&P of each visit, I assess the need for follow up calls. This database provides the clinic with much needed information that has been used in financial as well as specialty pharmacy needs. I also fill out an Adherence/Symptom Management sheet for each patient for their provider appointment. This helps to stress the importance of adherence as the provider discusses this and the patient's symptoms in the appointment. Finally, I include in the patient's appointment note read by the provider and nurse that a patient is on "ORAL Capecitabine" for example, so that all are aware of the treatment the patient is on. In addition to the patient care by the ONN, I have enjoyed expanding nursing education in our clinic with a resource book that includes current drugs used in our practice and their side effects, a chart of special monitoring that may be needed, and monthly updates for nurses on current

oral chemotherapy patients. Developing an ONN program has led to improved starts of new patients, less missed patients appointments and a more seamless approach with the provider, pharmacist and the ONN all working together to improve the growing area in oncology care of oral chemotherapy.

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### DEVELOPMENT OF A STOPLIGHT MAGNET FOR PATIENT SYMPTOM ESCALATION

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Category: Patient Education and Safety

In the outpatient oncology setting, patient acuity, volume and treatment options have expanded exponentially in recent years. Patients are living longer, requiring more support through their treatment and survivorship. New oncology therapies, such as immunotherapies, oral chemotherapies, targeted agents, etc. are increasingly administered in the home setting. Compounded with the shift towards treatment in the outpatient setting, patients and caregivers assume greater responsibility in symptom management at home. Because nurses play a pivotal role in patient education, a deficit was identified in patient knowledge and how to manage their symptoms while at home. The purpose of this project was to create a simple visualization tool for patients to easily understand and self-evaluate the severity of their treatment side effects and symptoms. This would allow early identification of serious side effects and preventing potential delays in care. An interdisciplinary team collaborated to create a simple refrigerator magnet to guide patients in identifying signs and symptoms and appropriate actions to take. The magnet was developed into a shape and schema of a stoplight to help patients recognize the severity of signs and symptoms they are experiencing and appropriate interventions. The project is currently underway within four high volume outpatient oncology-specific clinics. Success will be evaluated through data collection of phone call volume, before and after intervention. A patient survey will be administered pre and post intervention to validate effectiveness of the stoplight magnet. Patient satisfaction will also be evaluated. A stoplight magnet has been utilized in other patient populations, such as heart failure, asthma and diabetes. Further investigation of the efficacy of this tool is needed in

the oncology population. This project will determine the utility of this tool in the outpatient oncology setting to increase patient understanding of critical signs and symptoms and when to escalate care.

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### COMPASSIONATE DE-ESCALATION OF DISRUPTIVE BEHAVIORS FOR INPATIENT ONCOLOGY

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Category: Psychosocial Dimensions of Care

Abusive treatment of nurses by oncology patients is tragically common. In 2018 our two hematologic malignancy units at a Comprehensive Cancer Center struggled with repeated angry outbursts from a small number of highly emotionally-reactive patients. These patients struggled with the unavoidable privations of hospitalization: loss of control over their environment, their freedom of movement, and their personal boundaries. Unable to regulate the resultant anxiety, they acted out their frustrations upon staff. Oncology nurses excel in compassion, joining in the suffering of patients and offering emotional and spiritual support, and when these efforts are met with anger and abuse, nurses are left feeling helpless and confused. As helplessness mediates compassion fatigue and burnout, these experiences seriously threatened the well-being of our staff. To address these problems, we created a training program, with input from a psychiatric liaison nurse, in de-escalating disruptive behaviors while maintaining compassionate relationships. We created a trauma-informed framework for our nurses to understand these behaviors as consequences of past adverse experiences, current psychosocial stressors, and an inability to regulate emotions without support. We then taught therapeutic communication skills—mirroring, reflecting feelings versus content, affirmations, summarizing—proven to help regulate these emotions. We role-played these skills across many scenarios, including early prevention for high risk individuals, early intervention in rising anxiety, and escalating anger. Finally, we agreed on a best approach to communicating these events to other staff: stating plainly what happened, what triggered it, what intervention was helpful, and what agreement was reached with the patient to prevent recurrence. In pre- and post-training surveys, nurses were asked

to rate on a 5 point Likert scale their understanding of what motivates such behaviors, their efficacy in managing them, and their ability to repair the relationship afterwards. Scores rose an average of 20% in all domains after training. In the same year, Hospital Consumer Assessment of Healthcare Providers and Systems patient satisfaction with nursing communication scores rose seven points. In debriefings of events after training, nurses continue to report using these skills with confidence, achieving strong rapport and good patient outcomes. Oncology nurses can use this compassionate approach to bring difficult patients back to the fold—to reach those individuals most difficult to help, but also most in need of help.

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### HEALING HUMOR: UTILIZING HUMOR AND LAUGHTER IN AN AMBULATORY ONCOLOGY SETTING

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Category: Psychosocial Dimensions of Care

The oncology patient receiving a wealth of education, a myriad of medication and the general fear of the unknown is overwhelmed with the entire experience, this fear often leads to high anxiety, depression and lack of sleep which can leave patients mentally and physically exhausted even before treatments begin. The Oncology Infusion Center wanted to alleviate some of this anxiety by methods of integrating humor and laughter into treatment visits. The objective of the project was to investigate if by incorporating humor into outpatient treatment sessions patients stress levels decrease in turn making infusion days less “dreadful” and more “fun”. The Infusion Nurses in our outpatient setting have initiated stimulants to increase laughter with outpatients to see if it increased satisfaction and the treatment experience. These include various stories, dressing up for various occasions, and dance routines to silly songs, a pop-pop cheer squad and general comical situations as patients share them. These were carefully weighed on the individual patients and the appropriateness at that time. A four month study was conducted. The patients are all asked to rate their stress level in a Distress Screen prior to any treatment. Patients are asked to rate their stress level again after several treatments. A rating scale of 0–10 was utilized. Stress levels were checked on 100 patients. Stress levels of these 100 patients ranged from 7–10 on the first visit before starting chemotherapy treatments.

Patients were asked to re-rate their stress levels after 2 rounds of therapy and exposure to our Humor Therapy. Of these patients, 90% rated their stress at a 1–2 level. Healing Humor application demonstrated that patients stress levels were directly impacted as a result of nursing humor interventions. The infusion area has reviewed our current plan of incorporating humor in our infusion area. Because of overwhelming positive patient experience we plan to continue and expand our “Infusion Room Humor”.

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### **ALL-INCLUSIVE PROCEDURAL HDR/ BRACHYTHERAPY IN A SINGLE OUTPATIENT RADIATION ONCOLOGY SETTING**

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*Category: Coordination of Care*

High acuity gynecology HDR/Brachytherapy patients historically presented to radiation clinic and were transported to multiple areas of hospital or inpatient admission for treatment procedures. This led to increased hospitalization with risk of re-admission, injury, multiple treatment locations, transport, scheduling issues and decreased patient satisfaction. Primary goal was to establish a comprehensive outpatient model to provide HDR/Brachytherapy within a single specialized setting. This would subsequently eliminate need for lengthy hospitalization, transporting of patient, and decrease risk of harm. A secondary goal was to increase patient satisfaction with continuity of care. The Radiation outpatient clinic constructed two surgical rooms equipped with anesthesia, mobile CT/MRI imaging, radiation delivery capability and control/monitor area. An adjacent 5 bay recovery suite was established for post-anesthesia recovery following instrument placement and radiation. A staffing model was implemented including providers, anesthesiologist/CRNAs, nurses, radiation therapists, schedulers and clinical technicians. Nurses received education and training for moderate sedation, airway management, blood administration, pain management, and anesthesia best practices. Within two years of implementation, HDR/GYN procedures increased 54%. Two additional providers were added and the area operates 5 days a week with full staff. Visits average 6 hours and patients did not need to be admitted or transported out of the clinic. Two lead nurse FTEs were added for patient scheduling and coordination of care. There was a significant increased patient satisfaction with both external and internal

radiation treatment in one location. Patients became comfortable knowing that their needs would be met and there was a greater incidence of treatment compliance. Staff felt satisfaction in being involved with this multidisciplinary team and increased their skills with specialized training specific to this area. They are able to provide high acuity procedural care as if they were working in an OR or PACU. This has allowed us to use high-tech imaging and treatment in a single procedural setting within the Radiation outpatient clinic. It has eliminated the need for the hospital stays and multiple treatment locations. It has increased the team model and RN skill level. How can we further grow our population and effectively utilize this process? Possibilities include increasing this service for new treatment modalities with breast, endobronch, and sarcoma as well as additional outpatient procedures for other oncology entities.

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### **KEEPING OUR DUCKS IN A ROW; CARE COORDINATION OF COMBINED MULTIMODAL TREATMENT**

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*Category: Oncology Nursing Practice*

A cancer diagnosis can be overwhelming to patients and their families. Patients with cancer face not only a life-threatening malignancies, but also a remarkably complex treatment regimens that may consist of combined multimodal treatment of concomitant Radiation and Chemotherapy. Individually these treatments pose various side effects and challenges but combined they pose even greater complications. These patients can benefit from the coordinated interaction of a multidisciplinary team of specialists and a comprehensive plan of care to address their physical and psychosocial concerns, manage treatment-related toxicities, and prevent or limit long-term morbidities affecting health-related quality of life. At times there may be communication gaps that can complicate the coordination of care and impede a patient centered approach. This team developed and implemented an interdisciplinary team approach to bridge the gaps and enhance the quality and safety of all patients receiving concomitant therapies. We established a weekly meeting called “Ducks in a Row”. This was developed by our oncology nursing leadership across sites and modalities. Members representing radiation and infusion from medicine, nursing, advanced

practice nurses, social work, nutrition and allied health actively participate so that accurate treatment plans and support can be best tailored to individuals and their needs. A weekly list is generated by the radiation nursing team that includes patients on active therapy, pending new starts and recent completed patients. The list is distributed to all members of the team. During the meeting each patient is discussed regarding treatment, delays or missed appointments, nutritional status, psychosocial issues and side effects. The team follows the National Comprehensive Cancer Network Clinical Practice Guidelines in Oncology so plans are evidence based. Few published data are available regarding patient interactions with their team of multispecialty providers or communication amongst the team. However, evidence has suggested that gaps often occur in communication between patients and providers, as well as between one specialist and another. Patients receiving concomitant Radiation and Chemotherapy treatments present with specific challenges. Early recognition of side effects with early intervention of said side effects is essential for helping these patients safely complete their planned therapy. Utilizing a team approach allows everyone to have their “ducks in a row” to ensure the highest quality of coordination of care for this vulnerable patient population.

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### RELOCATING AN AMBULATORY INFUSION SUITE TO AN OFF SITE LOCATION: A BEST PRACTICE INITIATIVE

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Category: Oncology Nursing Practice

Multispecialty infusion centers provide care to hematology–oncology (HO) and non-HO patients in one unit, utilizing the same nursing staff. This project describes the relocation of an ambulatory infusion suite previously located within a hospital space to a newly renovated 11,000 sq foot floor located off-site from the hospital. The number of treatment chairs remained the same and an 8 additional exam rooms were added for providers who previously saw their patients on a different floor within the hospital to provide improved coordination of care. Direct feedback from staff about their preferred mode of communication, workflow and processes was sought by leadership to develop care delivery programs that best match the patient and staff needs. Nursing staff

were included in early design meetings and were asked to review equipment lists and provide feedback as to placement of chairs, hand-sanitizers, sharps containers and supplies important to the nurse's workflow. Prior to moving new policies and procedures were developed to include transporting of chemotherapy and blood products from the hospital, submission of specimens to our newly opened on site lab, simulated emergency management procedures, chemo spills and fire and safety events. Appropriate carrying cases were instituted. After reviewing new workflows, additional ancillary staff were hired and an assignment tool was implemented with staff rotating weekly to ensure staff competency and satisfaction. Implementation of a communication device for all nursing staff allowing them to be reached by anyone without the use of a phone. Assignments for the Nurses changed from room based assignment to chair based assignment. Two chairs were designated as “fast track” chairs to accommodate port flushes; injections, treatments less than 15 minutes. Patient assignments completed daily by assistant nurse manager /charge nurse utilizing an acuity scale method already in use. Copies are distributed daily to nursing, pharmacy, medical and administrative assistants. Color-coded time based scheduling tool implemented to improve overbooking. Our new Infusion Suite offers patients a comfortable, state of the art experience. Planning for our move offsite was essential for a successful transition. It is our hope that sharing this information will help others prepare should for a similar move. Many thanks to the staff, patients and their families who were involved with our transition.

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### IMPLEMENTATION OF THE UNITED STATES PHARMACOPEIA 800 STANDARDS ACROSS A HEALTHCARE SYSTEM

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Category: Oncology Nursing Practice

Although guidelines and recommendations for protecting healthcare staff from adverse effects due to handling of hazardous drugs have been around for over twenty years, it wasn't until recently that standards were published to ensure protection for healthcare

staff, and all staff who handle hazardous medications. With the recent final publication of USP 800 Hazardous Drugs—Handling in Healthcare Settings, the standards are enforceable by key regulatory bodies in healthcare. In light of the recent final publication, the entire nation is determining how best to meet the requirements as well as keep their staff safe. Many healthcare systems are grappling with how to best adopt the standards given what can be high variability in workflows and practices across their network. A large healthcare system spanning multiple states formed a steering team to address the requirements of USP 800 and create a plan for implementation across their entire system. The steering committee was comprised of experts in administration, nursing, pharmacy, supply services, education and occupational safety. The steering team approached the implementation of a hazardous drug safety program in a systematic, organized way which included a risk assessment of medications and job duties, development of a policy, integration of key elements into the electronic medical record, standardization of personal protective equipment, creation of an educational module and careful planning of a communication plan with utilization of champions. The components of the hazardous drug safety program were rolled out initially to entity champions for feedback. Changes were made throughout the process based on feedback and lessons learned. Although uncertainties still exist surrounding enforcement of the new standard, through their systematic approach this system is prepared to address those uncertainties and more importantly have taken the necessary steps to protect all their workers from exposure. This system was able to utilize the electronic medical record in a unique way in order to facilitate the implementation of this expansive program and identify patients receiving hazardous drugs.

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### **A CONTINUATION OF CREATING A CULTURE OF SAFETY: CHALLENGES ENCOUNTERED DURING THE COLLABORATIVE IMPLEMENTATION OF USP 800 GUIDELINES**

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**Category: Oncology Nursing Practice**

Updated recommendations from the U.S. Pharmacopeia (USP) 800 regarding requirements for safe handling of hazardous drugs (HD) have led to a change in policy at our NCI-designated Comprehensive Cancer Center. Implementing this new policy has proven to be a complex task requiring collaboration with members of staff from many departments. Nursing began education on the updated policy but soon realized that successful implementation would require a multifaceted approach. To accomplish this, a task-force was developed including representatives from departments such as pharmacy, environmental, building services, nursing and materials management. During these meetings, it became evident that each department had preconceived ideas of the effect this change would have on the institution as a whole. Nursing quickly pointed out that the practice change would increase our hazardous waste volume exponentially throughout the system. To test this, one of 8 infusion units was chosen to perform a week-long trial where every nurse was to wear all appropriate personal protective equipment (PPE) for every HD administered and the PPE was to be disposed of appropriately to generate information on waste accrual. Immediately it was determined that the waste containers currently in use were inadequate for the amount of waste produced. Working with materials management resulted in the implementation of soft-sided HD hampers specifically for disposal of the gowns, gloves and masks used. The IV accessories continued to be placed in the hard HD waste containers. The par number of gowns on each unit also required adjustment as there was a drastic increase in the number of gowns needed to implement the new process. The hazardous waste disposal trial generated conversation within the multiple departments regarding best practice for maintaining safety when handling HDs. The data gathered during the trial will guide budget decisions regarding the cost involved in both the supply and disposal of HDs. It will be a realistic reference for our infusion sites across the enterprise. Going forward nursing education will resume with all of this newly acquired data incorporated. The PPE champions will start to audit nursing practice to ensure all of the requirements for USP 800 are being met. The implementation of the new regulations will continue to be discussed at each Unit Practice Council to ensure all involved receive the same information.

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### **INFUSION PUMP ALARM FATIGUE: A NURSE AND PATIENT COLLABORATION FOR QUALITY IMPROVEMENT**

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Category: Oncology Nursing Practice

Patients receiving intravenous continuous infusions of Etoposide frequently report multiple episodes of infusion pump alarms due to air in line. A 2 day observation on a 48 bed oncology unit identified Etoposide infusions to have the highest amount of air in line alarms. A report was requested from pharmacy for the air in line alarm data for these infusions and the observation was confirmed as accurate. The aim of this project was to identify a solution to reduce the number of air in alarms that occurred during the administration of Etoposide via an infusion pump. A patient and nurse identified the anti-siphon valve as a solution, as it increases the fluid pressure in the IV tubing to ~4 psi. An in-service was provided and the nursing staff was educated on the use of the valve. A 3 month pilot was conducted with the use of the anti-siphon valve for Etoposide infusions. The baseline data for Etoposide infusions showed a total of 11,121 air in line alarms for the 2 months prior to the intervention. The 3 month post intervention results yielded a total of 4,114 air in line alarms. The use of the anti-siphon valve for Etoposide infusions reduced the number of air in line alarms by 71%. This valve was piloted on one 48 bed unit for 3 months and showed a significant decrease. As a result, the valve was implemented on all units across the institution to address the issue of air in infusion lines. The anti-siphon valve has been beneficial to both patients and staff, as the decrease in alarms provides a quiet environment and minimizes sleep interruptions for patients. This product was implemented to address 2 issues, first to reduce alarms for patients during 24 hour infusions and second to reduce alarms for nurses. The innovation was that the implementation of the new product proved beneficial to both issues.

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### **BREATHE DEEP. BUILDING CONFIDENCE WITH TRACHEOSTOMY CARE**

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Category: Coordination of Care

Tracheostomy care can be overwhelming, making nurses feel apprehensive due to challenges such as lack of resources, experience, educational materials and often skill sets. As oncology nurses, tracheostomies are not common throughout the ambulatory care center and in-patient side. Patient safety is the priority and increasing the knowledge and proficiency of the nurse may decrease adverse events. A brief survey sent out through an online survey system was obtained and identified that many departments had staff that did not feel comfortable or properly educated to safely take care of a patient with a tracheostomy, even though all nurses have some education and exposure in their nursing school curriculum. Nurses only had the written standard to review when it came to tracheostomy care, which left many nurses uneasy about tracheostomies and lack of educational resources. Because of this an assessment of needs was done and some ideas were an educational video which could be accessed at any time, yearly competencies at the annual skills fair, and point people to call if needed. The video was completed in four different sections: assessment of a patient with a tracheostomy; tracheostomy care; speaking with a tracheostomy; and suctioning a tracheostomy which will be posted to our learning site for viewing at any time a nurse feels the need. It also helps that staff can look at one particular section and not view the entire video. A skill station at our annual skills fair will be added as well to help refresh skills yearly. Staff can also call the head and neck NP or the CNS if needed. Staff will be queried again with a brief survey once they have viewed the videos and attended the skills fair to determine level of comfort with information available to them. Recognizing a need for education and training will help increase nursing confidence which will decrease adverse events and patient safety issues.

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### **FACE-TO-FACE—USE OF SCHEDULED TELEHEALTH VISITS FOR ONCOLOGY PATIENTS TO REDUCE EMERGENCY DEPARTMENT UTILIZATION AND IMPROVE PATIENT ENGAGEMENT**

Kathleen Duffy Fray, MSN, RN, NYU Langone Health, New York City, NY; Phebe Lyndsey Gail Chiang, BSN, RN, OCN®, NYU Langone Health, New York, NY; Joan



Scagliola, MSN, RN, NYU Langone Perlmutter Cancer Center, New York, NY

Category: Symptom Management and Palliative Care

Patients with malignancies are often high utilizers of health resources and are more likely to visit the Emergency Department (ED). Leveraging novel video-visit tools in the Electronic Medical Record (EMR), our team launched a pilot telehealth program with a limited number of high-risk Hematology and Thoracic Oncology patients at our Clinical Cancer Center. When compared to no inter-visit patient outreach, we hypothesized that scheduled telehealth visits that include video for symptom management, medication review and general patient monitoring would reduce preventable ED utilization and improve patients' engagement. The pilot population was based on the following criteria: active chemotherapy with preference given to those patients with late-stage or metastatic disease and history of ED utilization; New York State residency; access to a smart phone and wireless internet. A multi-disciplinary team in the Thoracic and Hematology Disease Management Groups (DMGs) selected patients for this pilot. Candidates were introduced to the video-visit concept as an additional support to help manage symptoms. Agreeable patients were referred to a RN in the Hematology DMG or a NP in the Thoracic DMG who were the clinical leads. A clinical note template was created and a tracking tool was developed to capture clinical interventions and technological successes and challenges. In the first three months of the pilot, there were 34 scheduled telehealth visits with 9 unique patients: 27 of the visits successfully took place. The most frequent clinical intervention included medication adjustment and referral to social work or nutrition. Patient and caregiver education took place at each visit. ED utilization for the cohort showed a 33% reduction. All patients verbalized satisfaction and perceived value of the program. Early challenges stemmed from patient difficulty using the video technology due to password recall and overall comfort using the technology. The use of telehealth technology to supplement regularly scheduled clinic visits can be a powerful tool for managing patient ED utilization and engagement in high-risk advanced disease oncology patients. Although the pilot population is small, early results indicate telehealth could be an effective modality for providing symptom and medication management. Delivering care virtually provides an additional check-in with a clinician, which would ease patient anxiety and reduce preventable ED visits.

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## STRATEGIES FOR SUCCESSFUL PATIENT SUPPORT GROUPS

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Category: Psychosocial Dimensions of Care

Participation in cancer support groups can be extremely beneficial for patients and caregivers. Common benefits are an improved understanding of cancer, enhanced coping skills and an increased feeling of control. With many patients now turning to the internet for education and support, starting or maintaining in-person support groups is challenging. However, in-person support groups provide a dynamic connection absent from digital formats. Although the challenges for leaders may be great, the benefits for patients are many. Over the last decade, as in-person groups have dwindled, the authors developed a successful group model that has resulted in a vibrant, thriving support group. This poster presentation addresses practical issues for consideration when starting and sustaining a support group. Decisions regarding location, setting, day, time, length of sessions, and food can significantly impact a group's success or failure. The authors co-facilitate a blood cancer support group. Blended expertise of nursing and social work, coupled with strong group leadership skills, have provided a forum for cancer-related education, recognition of the psychosocial aspects of cancer, enhanced coping skills, and participant empowerment. Along with emotional support, meetings feature various guest speakers with medical or psychosocial topics. This poster presentation provides recommended subject matter for replicating this model. Multiple marketing methods may be used to attract new group members. Although traditional tools such as fliers and posters are useful, leaders should explore other avenues. Participating in community cancer events results in team spirit and is a successful marketing strategy. An educational component attracts members, boosts attendance and keeps participants coming back. Meals and special events foster cohesion and a sense of shared purpose. Personal calls, texts and face-to-face communication increase attendance and make members feel more valued. The authors' group started with two members and has now grown to an average attendance of 25-35. This group has survived and thrived during a time when many in-person cancer support groups struggled. Support merged with education can make groups more successful. Group leaders must think

about long-term goals. Just like with the cancer journey, support groups are a marathon, not a sprint. Through implementation of these recommended success strategies, leaders can create an atmosphere for mutual support, decreased isolation, increased knowledge and improved coping skills.

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### **THE EFFECTS OF IMPLEMENTING A CHG BATHING PROTOCOL ON THE REDUCTION OF CAUTI/CLABSI RATES ON THE INPATIENT ONCOLOGY UNIT**

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*Category: Oncology Nursing Practice*

Catheter Associated Urinary Tract Infections (CAUTIs) and Central Line Associated Blood Stream Infections (CLABSIs) are preventable Hospital Acquired Infections (HAIs) that are not only detrimental to the health and wellbeing of the patient but are a costly occurrence for the facility as well. The effects of CLABSIs/CAUTIs on the patient range from prolonged hospital stay to death, in some cases. With billions of dollars being spent annually on the management of these avoidable illnesses, it is imperative that meaningful solutions be introduced aimed at prevention. Haddadin (2019) suggests that through the use of strict aseptic technique, proper surveillance and effective management of these lines, the occurrence of these infections can be decreased, if not eliminated. The objective of this project was to evaluate the effectiveness of the facility's Chlorhexidine Gluconate (CHG) bathing protocol on the rates of occurrence of both CAUTIs and CLABSIs on the inpatient Medical-Oncology unit. In January of 2019, a facility-wide initiative was implemented to reduce the occurrence of both CLABSI and CAUTI rates. Following this protocol, any patient with a line (i.e. central lines, PICC lines, accessed ports, Foley catheter, etc.) should receive a 2% CHG bath daily. This consists of cleansing with pretreated wipes, with special attention paid to both the device/dressing as well as the associated line/tubing. This bathing process is then documented in the electronic medical record and monitored through a daily audit to ensure compliance. In 2018, there were two documented CAUTIs and no CLABSIs on the inpatient Medical-Oncology unit. Since implementation of this initiative, to date, there has only been one CLABSI, representing a fifty percent decrease in HAIs. Our facility has taken a strong position in an effort to prevent CLABSI and CAUTI rates. Along with increasing education

regarding the care of both central lines and urinary catheters, the introduction of CHG bathing protocols facility-wide has helped to maintain low occurrence rates and has led to a further decline in incidence.

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### **THE NEW FRONTIER OF IMMUNOTHERAPY SURVIVORSHIP: A CASE STUDY APPROACH**

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*Category: Survivorship*

Immunotherapy treatment in oncology care has resulted in large groups of patients who have achieved a durable response with an undefined survivorship picture. A large number of these patients are metastatic melanoma patients who have received immune checkpoint inhibitors. These survivors are the pioneers in the new frontier of Immunotherapy cancer survivorship. Current survivorship care is based on the general experience that patients will gradually heal and develop a stable "new normal". Given the unpredictability and wide range of immune related adverse effects (IrAE), this necessitates a new survivorship delivery model for those patients receiving immunotherapy. Early research indicates that these survivors have significantly lower physical, psychosocial, emotional, spiritual and financial quality of life. Some of the areas identified include employment issues, financial distress, low self-esteem, unfocused life goals and relationship distress. Oncology nurses play a pivotal role in the care of these pioneer patients. Immunotherapy is a very different treatment paradigm that necessitates new nursing skills. The IrAE are subtle, unpredictable, possibly life threatening and potentially long lasting. This has required new oncology nursing knowledge and education. Currently immunotherapy nursing care includes patient education focused on early assessment and close monitoring of side effects, psychosocial support, timely intervention with appropriate referrals to a varied multidisciplinary team and preparation for survivorship. The needed content of the survivorship preparation is starting to emerge and may focus more on long term psychosocial support, increased attention on role change preparation and increased multidisciplinary collaboration. Oncology nurses need ongoing education about the unfolding story of these survivors in order to continue providing comprehensive cancer care. Learning from a patient's lived experience through a case study is one way of achieving that education. This abstract will present current issues faced by one metastatic melanoma immunotherapy survivor. It utilizes

a case study approach and outlines the role of oncology nursing in the survivorship phase. Understanding the patient experience will serve as a springboard for oncology nursing to form a new model of survivorship delivery in the area of immunotherapy.

### 134 TELEONCOLOGY NURSE NAVIGATION— THE GLUE THAT HOLDS TELEONCOLOGY TOGETHER

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Category: Coordination of Care

Patients living in rural areas face challenges when diagnosed with cancer, including additional time constraints, increased costs, and delays in diagnosis treatment. These Challenges can be address by TeleOncology yet leaves additional barriers that can be identified and addressed by an oncology nurse navigator (ONN). An ONN is a medical professional who guides patients in making informed decision, collaborates with the medical team to support timely cancer screening, diagnosis, treatment, and increased supportive care. TeleOncology supports patients in receiving the right care, at the right time, and in the right place, with the role of the ONN focusing on addressing the barriers that would hinder TeleOncology benefits to the patient. Upon referral, the ONN contacts the patient within one business day. The ONN and oncologist review the patient's case and determine what workup is needed. The ONN contacts the patient to discuss TeleOncology, their understanding of their diagnosis, the role of the ONN, and performs an intake and barrier assessment. The ONN addresses any barriers immediately and throughout the patients TeleOncology experience. Once treatment is determined, the ONN develops and review systemic therapy packet with the patient. The ONN contacts the patient regularly to address education, barriers, and be a supportive care advocate. Upon completion, the ONN prepares and reviews a survivorship care plan with the patient. Intermountain Healthcare recognized the impact of the ONN in TeleOncology and implemented a full-time position specific to TeleNurse navigation in August 2019. Standardized processes and workflows have since been developed. TeleOncology address the time, money, and effort it take for rural cancer patients to receive their screenings, diagnosis, and treatment close to home. They ONN and the TeleOncology team is the perfect paid to ensure patients get the right care, at the right time, and in the right place, allowing the patient to live the

healthiest lives possible. With this perfect pairing, the ability to expand the TeleOncology programs continued with planned implementation to several locations in 2020.

### 135 IMMUNE CHECKPOINT INHIBITOR ASSOCIATED MYOCARDITIS: RARE AND HIGHLY FATAL

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Category: Oncology Nursing Practice

Immune checkpoint inhibitors (ICI) are novel cancer treatments that have transformed cancer therapy. Since the first ICI was approved in the US in 2011, they are being used more commonly than conventional chemotherapy due to a favorable safety profile and tolerability. Despite their benefits, ICI have shown to produce immune-related side effects, including myocarditis. Although the incidence of myocarditis is rare, it is notable that myocarditis has the highest fatality rate among adverse events (ranging from 27 to 50%). Approved ICI include ipilimumab, pembrolizumab, nivolumab, atezolizumab, avelumab, and durvalumab given either as monotherapy or combination ICI therapy. This presentation will provide an overview of ICI-associated myocarditis, a rare side effect of treatment, proposed methods to monitor for this adverse event, current treatment guidelines, and nursing care strategies. Incidence of myocarditis is estimated to be between 0.06%-1% with almost 50% of all cases experiencing a MACE (major adverse cardiac events), defined as cardiovascular death, cardiogenic shock, cardiac arrest or complete heart block. One of the challenges in monitoring for ICI-associated myocarditis is the difficulty of early identification as there are not widely used monitoring standards. According to the American Society of Clinical Oncology (ASCO) 2018 guidelines, it recommended a baseline electrocardiogram (ECG) and possibly consider troponin, especially in the use of combination immunotherapy prior to initiation of treatment. Upon signs/symptoms of suspected myocarditis, it is imperative to alert the physician. Cardiology consultation is usually recommended along with testing such as ECG, troponin, BNP, echocardiogram, and chest x-ray. ICI-associated myocarditis is treated with immunosuppression and supportive therapy for heart failure. It is also recommended to discontinue ICI. Early recognition of signs/symptoms of myocarditis (i.e. dyspnea, fatigue/generalized weakness/lethargy, chest pain, edema/weight gain, malaise, nausea, syncope/

fainting, palpitation, fever, cough, and anorexia) along with cardiac biomarkers, ECG, and knowledge of the potential immune-related severe adverse events associated with ICI use can aid in getting the patient the treatment that s/he needs and hopefully prevent further deterioration leading to death. As more novel treatments are approved for cancer treatment, risk of cardiotoxicity persists even with the targeted therapy. It is imperative to recognize the potential rare cardiac effects, such as myocarditis. Early recognition and management of toxicity is essential in preventing cardiac death.

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### **INTERVENTIONS TO IMPROVE ONCOLOGY NURSES' EMOTIONAL HEALTH AND MENTAL WELL-BEING**

**Brittany Estlinbaum, RN, BSN, University of Rochester Medical Center, Rochester, NY**

*Category: Oncology Nursing Practice*

Nurses are caregivers who always put others wants and needs before their own. Oncology Nurses, in particular, carry their patient's burden of a new diagnosis, treatment plan and side effects, uncertainty, and even the possibility of death. The weight of these monumental burdens causes the caregiver to experience burnout and emotional distress. Interventions to relieve the Oncology Nurses' daily stressors and improve their mental health are vital to job performance and patient satisfaction. This clinical abstract is designed to identify interventions to improve the mental health of Oncology Nurses. The intended outcomes from the interventions are to increase employee attitudes, job satisfaction, and staff longevity. As a result, nursing staff will provide more adequate, genuine, and compassionate care. Improved Press Ganey scores and an increased trust in the institution will ensure a maintained client base and potentially an increase due to positive word of mouth. Since Oncology Nurses experience some level of caregiver burden on a daily basis, the Blood & Marrow Transplant Unit implemented interventions such as staff debriefings, advocacy for EAP (Employee Assistance Programs), pastoral care meetings, and supportive leadership with an open door policy were implemented to help improve their emotional health. These interventions all involved collaborative efforts from inpatient nurses, APP's, Oncologists, and chaplains within our institution. From small huddles on the unit to large conference room discussions, nurses had the opportunity to speak or actively listen. A mixed methodology was used to analyze qualitative

and quantitative data. Staff debriefings, on caregiver experiences, were found to be the most effective form of emotional support. This was followed by effective unit leadership and the chaplain service. The overarching theme that helped Oncology Nurses manage their compassion fatigue was communication with other staff members who experienced the same burdens. Based on staff feedback, open communication through the use of staff debriefings, pastoral guided talks with staff, and supportive unit leadership aid in improving an Oncology Nurses' emotional health and well-being. A better understanding of effective interventions, especially during times of significant loss or emotionally challenging cases, will improve the nurses overall health and allow for more effective coping.

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### **ADMINISTERING HiDAC IN AN OUTPATIENT ONCOLOGY CENTER**

**Patrick Evans, RN, BSN, UPMC Hillman Cancer Center, Pittsburgh, PA; Gloria Gotaskie, RN, MSN, UPMC Hillman Cancer Center, Pittsburgh, PA; Hailey Whetzel, RN, BSN, UPMC Hillman Cancer Center, Pittsburgh, PA; Lindsey Sabol, RN, BSN, OCN®, UPMC Hillman Cancer Center, Pittsburgh, PA**

*Category: Treatment Modalities*

Leadership from the outpatient setting partnered with the inpatient clinical team to determine which chemotherapy regimens could be safely administered in the outpatient setting to increase availability of inpatient beds. A workflow had to be created to allow administration of HiDAC (high dose cytarabine) in the outpatient setting for patients diagnosed with a hematological malignancy. The outpatient setting is adequately equipped to handle this regimen safely while providing high quality care. The purpose of this project was to incorporate HiDAC into the outpatient setting using eligibility guidelines to increase capacity in the inpatient setting. This will also allow decompressed inpatient volumes and add capacity to take higher level acuity. Eligibility requirements were created to determine which patients can receive HiDAC in the outpatient setting. Patients receive their first dose in the outpatient facility and second dose via a delayed start portable infusion pump administered at home Monday, Wednesday, and Friday. Home care collects labs and disconnects pump Tuesday, Thursday, and Saturday. A neuro assessment was created to evaluate treatment related neuro toxicity. Process was implemented successfully, and data is being collected on patients receiving HiDAC treatment

outpatient and inpatient comparatively. Ongoing data will be collected to capture larger sample size. Further analysis will be completed on inpatient treatments to develop further criteria to determine which patients can receive outpatient HiDAC safely. The successful completion of patients receiving HiDAC in the outpatient setting has raised the question if other treatment modalities have the same potential. Further discussion will take place once more data is collected to jointly decrease inpatient chemotherapy admissions, maintain standard of safety and quality of care, and to meet patient satisfaction goals.

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### **IDENTIFYING AN EDUCATION GAP IN FERTILITY PRESERVATION OPTIONS FOR THE HEMATOLOGIC MALIGNANCY PATIENT**

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*Category: Patient Education and Safety*

Patients with hematologic malignancies are confronted with many challenges during their initial diagnosis. Education is provided regarding their diagnosis, upcoming therapy, potential side effects, and psychosocial support; however, due to the need to start therapy quickly, counseling patients on their fertility options can easily get lost among the other important issues. Many oncologic treatments can affect the patient's reproductive system and patients need to be counseled on options for preservation. However, we discovered that there is a gap in fertility counseling when we look at the number of oncology patients in their peak reproductive years receiving oncologic treatments in our hospital compared with the number of those patients seen by our outpatient fertility clinic. This appears to be a multidisciplinary issue with doctors, advanced practice providers, and nurses expressing lack of knowledge of available options and lack of confidence in having these conversations with patients. Our goal is to improve access and utilization of Oncofertility services for the hematologic malignancy patients. As an important part of this goal, we are focusing on patient and provider education. A hospital-wide, multidisciplinary Oncofertility steering committee was created to recognize the gaps and come up with solutions. That committee was then divided into 5 working groups to target specific topics including patient and provider education. As part of the patient and provider education working

group, we are providing more timely patient information regarding fertility preservation options as well as developing education handouts. We are creating a higher quality education program for all bedside providers, including frontline nursing staff, in available fertility preservation options. Development of patient and provider education is in progress. Prior to approval of patient education, we will present our work to the oncology patient advisory council for feedback. Outcomes will be measured by volumes of hematologic malignancy patients receiving treatment as well as number of referrals to Oncofertility services compared to baseline values prior to implementation.

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### **SAFE LANDINGS: BRIDGING THE GAP BETWEEN INPATIENT AND OUTPATIENT**

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*Category: Coordination of Care*

Patients admitted directly to inpatient units, who have not seen an outpatient provider are at higher risk of falling through the cracks after discharge than patients who are established in the outpatient setting. If an outpatient provider team is not assigned, any follow up treatment; i.e. labs, infusions, diagnostic testing may not be followed up on in a timely matter, posing a risk to the outcome of their treatment. The purpose of this project was to create a standardized process for the inpatient provider team to hand off to an outpatient provider team. This new process "hard-wires" vital communication as well as ensuring follow up appointments are scheduled prior to the patient's discharge. Inpatient and outpatient teams now feel confident in the follow through for each patient's care and patients leave the hospital with a plan. Once the problem was identified, an interdisciplinary working group was formed to make sure all stakeholders were involved in creating a process hospital wide. This group included nursing, case management, new patient coordination, patient scheduling, inpatient and outpatient providers, multidisciplinary support, nursing informatics, transfer center, education and leadership to create and implement this process. The process consists of every patient being assigned to

case management and early communication to new patient coordination who assigns the patient to the appropriate outpatient provider team. The inpatient team then makes appointments with the appropriate team via patient scheduling and enters a comprehensive discharge summary. Once discharge is completed the outpatient provider team assumes care of the patient prior to new patient appointment. No patient is discharged without a team following them as well as tracking any treatments that follow discharge. The working group met on a regular basis to establish the process and get it vetted from all job classes prior to implementation. Evaluation data will be provided regarding provider satisfaction, patient satisfaction, and number of incidents before and after implementation related to missed treatments/appointments. Working as an interdisciplinary group across inpatient and outpatient a process was identified that would work for all providers to support high quality patient care. Bringing all the appropriate team players together has improved quality, patient satisfaction and continuity of care, and may prove to be a model for future projects.

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### FALLS RISK SCREENING AND ASSESSMENT IN ONCOLOGY

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Category: Patient Education and Safety

Identifying patients at risk for falls is best practice and a Joint Commission standard. We did not have a formal tool or process in place to identify patients at risk. Screening was occurring inconsistently, and staff was uncertain on what to do with the screening information. We identified a need to create a process which considers special situations that may put oncology patients at risk for falls and provide training to staff on falls interventions. The purpose of this project was to identify a way to screen and assess oncology patients for risk of falls, elevate nursing practice to provide safety interventions and education to patients, and to create a means to communicate falls risk across a five center academic cancer network. A literature search and review was completed which did not reveal oncology specific falls risk or safety implementation data. We developed a Cancer Center Falls Committee to identify the best workflow for an improved falls risk screening/assessment process. A guideline was created indicating role delineation, frequency of screen and assessment, guide to intervention, and communicating risk. Screening tools were reviewed and a

3-question tool was created. Documentation was created for RNs to document a more detailed assessment regarding a patient's risk for falls. A means to flag patients at risk for falls in the electronic medical record was identified. Education was provided to RN and tech staff at our annual skills fair. Upon evaluation of this project, we have found an improved awareness of falls risk and appropriate interventions. Staff now has clear direction on how and when to screen and assess patients and provide appropriate interventions. Overall creation of a guideline and workflow provides a clear direction for staff to screen and assess patients and to provide education on outpatient specific interventions. We were successful in unifying the academic cancer network's practice and providing tools for staff to screen, assess, implement and communicate falls risk for the oncology outpatient population. We have created a guideline and workflow that considers factors specific to the outpatient oncology population and communicates falls risk across an entire academic cancer network.

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### "CHEMO ALERT!" ONE COMMUNITY HOSPITAL'S SOLUTION TO USP 800 REGULATIONS AND ONCOLOGY CARE NEEDS

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Category: Oncology Nursing Practice

Many community hospitals have a designated oncology patient care unit, however, frequent emergency room back-ups prompt urgent patient moves to any acute care bed available. In that rush, patients with a cancer diagnosis are often placed on non-oncology units. When chemotherapy is ordered the dilemma of sending a nurse to the patient or transferring the patient to the oncology unit arises. To address the USP 800 regulations, our team identified the importance of all inpatient chemotherapy being administered on the oncology unit with the exception of patients who required ICU level care. The purpose of implementing a "chemo alert" was to facilitate movement of patients requiring inpatient chemotherapy to the oncology unit. This would place the patient in the safest environment and minimize the physical space for chemotherapy residue monitoring. The focus would be on transferring the patient as soon as possible to make every effort for the administration of chemotherapy to take place during the day shift. After collaboration of a multidisciplinary team, a "chemo alert" was developed by utilizing our code paging system. Any team member who received

chemotherapy orders can trigger the alert. The alert is triggered by calling the hospital operator who sends a page to the Administrator on Duty (AOD), the bed placement center, the pharmacy, the oncology charge RN, and the nursing director. The AOD immediately assists the oncology charge RN with identification of a transfer off of the oncology unit making room for the patient who needs chemotherapy. When a patient is identified housekeeping is also notified for rapid cleaning. The first few alerts were tracked for efficiency. It was identified that some pagers needed to be added to the list. Overall, patients were moved rapidly and chemotherapy was successfully administered. Patients stated they felt safe and secure and physicians verbalized satisfaction with the process. The USP 800 rules regulate chemotherapy protective equipment as well as disposal of wastes and environmental surveillance. Adherence to these regulations is much easier if chemotherapy administration and post-chemotherapy care are confined to the area with staff expertise including the environmental services and waste removal crew. By using technology, we implemented a “chemo alert” to successfully deliver chemotherapy administrations on the designated oncology nursing unit.

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### **UNDERSTANDING ASSOCIATED LONG-TERM CARDIOVASCULAR EFFECTS IN POST-MENOPAUSAL BREAST CANCER WOMEN RECEIVING ADJUVANT AROMATASE INHIBITOR THERAPY**

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**Category: Survivorship**

Breast cancer is a common diagnosis among women over the age of 50. In many cases, the breast cancer tumor is estrogen receptor positive, requiring the commencement of an adjuvant aromatase inhibitor therapy for 5–10 years. In a menopausal state, most women have one or more cardiovascular disease diagnosis. In identified high risk women, long-term use of aromatase inhibitors has proven to increase lipids, triglycerides as well as, hypertension, cardiomyopathy and risk of myocardial infarction. A recent Medicare population study evaluating the risk of myocardial infarctions, demonstrated approximately 17% of these women experienced a myocardial infarction while on the anastrozole. Breast cancer is now being viewed as a chronic disease like cardiovascular disease, leading

to the development of cardio-oncology programs to prevent, co-manage and treat the associated cardiovascular diseases in women with estrogen receptor positive breast cancer. The purpose of the project was to complete a comprehensive cardiovascular risk assessment in menopausal breast cancer women prior to commencing adjuvant aromatase inhibitor therapy, identify high risk patients and, improve education on the possible associated cardiovascular risks. A literature search using CINAHL and Pub-Med were completed using the following key words: Breast cancer, post-menopausal, estrogen-receptor positive, aromatase inhibitor and cardiovascular disease. The literature search provided 11 articles which 7 of the articles were quasi-experimental and 5 articles used a non-experimental design. Nurse practitioners play a vital role in screening and coordinating care in post-menopausal women for associated cardiovascular risk preceding commencement of an aromatase inhibitor. Post-menopausal women need to be screened for their non-cancer related cardiovascular risk factors including: co-morbid diseases, lifestyle and familial risks. The breast cancer treatment related risks include: reviewing the chemotherapy/biotherapy agents previously received and if left chest wall radiation therapy was completed. The Framingham Risk Score tool should be completed to identify the women’s possible cardiovascular risk. Collaboration with Primary Care Providers is imperative for all post-menopausal breast cancer patients receiving aromatase inhibitors for continued monitoring of lipids and triglycerides. For all post-menopausal breast cancer patients, with identified high risk patients should be considered for a referral to Cardiology or Cardio-Oncology if available at the institution.

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### **PATHWAY TO SUCCESS: ROADMAPING QUALITY CARE FOR THE ONCOLOGIC RECONSTRUCTIVE PATIENT**

**Jennifer Fox, MSN, RN, OCN®, Memorial Sloan Kettering Cancer Center, New York, NY; Patricia Lacy, MSN, CNS, OCN®, Memorial Sloan Kettering Cancer Center, New York, NY**

**Category: Professional Development**

At this comprehensive oncology institution, the Plastic and Reconstructive Surgery Service is a complex outpatient setting which encompasses caring for oncology patients undergoing all types of reconstructive surgery. There are seven locations providing this specialized nursing care. Responsibilities include perioperative education, surgical care

and psychosocial support that patients require in the postoperative period. The lack of a structured transition to specialty training led to an institution-wide standardized pathway template that was adopted and individualized for this unit. A clear and concise learning pathway for the preceptor to follow was implemented to streamline the nursing orientation process for the preceptee. The tool is designed to facilitate the unit orientation of the preceptee, while using a standard template that was adapted to fit the Plastic Surgery nursing role. The Plastic & Reconstructive surgical service is multifaceted. Implant-based breast reconstruction is introduced first. Nurses are required to advance to independent tissue expansions before moving forward; followed by autologous breast reconstruction and dermatologic procedures. Lymphedema cases are introduced next. The final weeks of the plan conclude with the most complex cases, including head and neck and gynecologic reconstruction. Supplemental focus readings relating to the specific surgeries and adjuvant treatment are provided to enhance learning. Since inception six months ago, six nurses have utilized this tool and successfully completed orientation. Feedback includes satisfaction with organization and structure in a comprehensive learning environment. Preceptors have embraced the tool and report ease in developing an education plan. Challenges have included real time feedback documentation, preceptor handoff and competency development. Buy-in from the nursing staff remain critical for continued improvement in the orientation process. The pathway creates a standardized and comprehensive orientation tool for outpatient surgical oncology practice for nurses. The utilization of this individualized approach for nursing orientation improves consistency in practice that leads to decreased nursing anxiety and improves satisfaction, while also providing uniformity in outpatient surgical nursing care across a multi-site oncologic enterprise.

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### **STANDARDIZING THE MANAGEMENT OF THE CONTINUOUS AMBULATORY DELIVERY DEVICE (CADD)**

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**Category: Patient Education and Safety**

Standardization for the management of the Continuous Ambulatory Delivery Device (CADD) is essential in promoting safe chemotherapy administration in the home. While processes were set in place to address patients going home on infusion pumps; a need was identified for streamlining the discharge education process which includes nursing documentation, patient education, troubleshooting, and safety at home. Management of the CADD involves patients, families, and nurses. To ensure appropriate education is being provided to the patient and family there needed to be standardized guidelines for the nurse to follow. These guidelines included: talking points for the nurse educating the patient and consistent documentation by all nurses. A PowerPoint presentation was developed as the base for one on one education of the infusion nurses; this education was provided to three infusion units at the ambulatory infusion NCI-designated Comprehensive Cancer Center. The education included how to properly document the administration and documentation of the CADD. New patient education materials were developed for the patient/family to take home. These new educational materials included troubleshooting alarms, daily care and how to disconnect should the patient wish to disconnect at home once infusion is complete. Patients are also informed on how to contact the infusion pump company directly where a nurse is available via telephone 24 hours a day to answer questions and assist patients in troubleshooting alarms. Once connected to the CADD the patient is to remain in the infusion center for a designated period of time: a third RN check is performed at the end of this time to ensure the pump is functioning correctly. Evidence-based, standardized education for nurses to provide to patients is essential to ensure the continuity of safe patient care. A standardized process for the administration of medications via the CADD pump enables all nurses to assist should a problem arise. With the availability of these updated resources and guidelines, nurses are able to provide the same education to all patients. Our goal is to implement this education throughout all ambulatory infusion sites within the cancer center, along with having this process added to the ongoing annual competencies for oncology infusion nurses.



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### **NURSE EDUCATION TO ENHANCE MANAGEMENT OF BMT PATIENTS WITH NEUTROPENIC FEVER**

**Kate Gaspar, RN, BSN, BMTCN<sup>®</sup>, Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins Hospital, Baltimore, MD; Kathy Mooney, MSN, RN, ACNS-BC, BMTCN<sup>®</sup>, OCN<sup>®</sup>, Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins Hospital, Baltimore, MD**  
*Category: Oncology Nursing Practice*

Sepsis is a leading cause of death in the United States, and at least 1.7 million adults develop sepsis every year. Because of their prolonged neutropenia, blood and marrow transplant (BMT) patients are at increased risk for developing infection and sepsis-related morbidity and mortality. Neutropenic fever (NF) is an oncologic emergency as fever may be the only symptom of infection in BMT patients. Early identification of and intervention for NF is a crucial aspect of BMT nursing practice and can decrease the risk of poor clinical outcomes. The BMT unit Orientation Committee at this NCI-designated comprehensive cancer center identified discrepancies in clinical practice and understanding of the NF protocol among new members of the nursing staff. The purpose of this project was to evaluate nurses' knowledge of current NF practice, provide education on NF protocol, and re-evaluate post-intervention to assess for increased knowledge and understanding of NF management. A 12-question multiple choice and True/False knowledge test was developed by the Orientation Committee based on the Oncology Department's NF protocol. The BMT Clinical Nurse Specialist developed a new NF algorithm and reeducated all nurses on sepsis and NF. Thirty-two nurses (39% of nurses) completed the pre-test prior to education. Nurses completed the knowledge test again three months post-intervention. This educational intervention improved knowledge in three key areas. The post-test showed a 39% increase in the number of nurses who correctly answered that IV antibiotics should be started within one hour of NF. There was a 16% increase in those who correctly answered when to check vital signs during NF. There was a 10% increase in those who correctly answered when to send blood cultures during NF. This educational intervention successfully increased nurses' knowledge of NF. Limiting factors included fewer nurses (n=17) completed the post-test compared to the pre-test and years of experience was not captured during testing. The results of this project prompted the BMT unit nurses to develop a NF lecture for all newly hired nurses and

create a unit-based NF competency. Although not all nurses participated in the pre- and post-testing, 100% completed the NF competency. Finally, NF data are now analyzed monthly to identify areas needing further intervention.

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### **EVIDENCE-BASED PRACTICE IN CANCER CARE: OPPORTUNITIES AND RESULTS FROM A NATIONAL SURVEY OF ONCOLOGY NURSES**

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*Category: Oncology Nursing Practice*

Evidence-based practice (EBP) is a clinical decision-making approach that improves quality and outcomes in healthcare. Despite the benefits of EBP, it is not yet standard practice. Barriers include organizational culture and lack of knowledge, implementation skills and time. To date, EBP knowledge and beliefs among oncology nurses has not been explored nationally. The purpose of the project was to determine EBP beliefs, implementation strategies self-efficacy and competencies among a national sample of oncology nurses. This was an IRB-approved project. Oncology nurses were contacted via email and at a national meeting to complete an online survey. Respondents completed the EBP Beliefs Scale, EBP Knowledge Scale, EBP Competencies Scale, EBP Implementation Strategies Self-efficacy scale and demographic and open-ended questions. Analyses were conducted on data collected from 893 respondents (19.8% response rate) from a wide range of healthcare organizations across a diverse geographic sample of the U.S. Respondents rated themselves competent in only 1 of 24 competencies (questioning clinical practice to improve quality care; 3.1 of 4.0, SD 0.6). Respondents were not aware of their organization reviewing practices (55%) or practices being discontinued for not being evidence-based (52%). Mean score on EBP Competencies Scale was 60.1 (SD 16.3, range=25-96) indicating a general lack of competence in EBP. Mean score on EBP Knowledge was 19.8 (SD 6.9, range=0-36) indicating EBP knowledge deficiency.

Respondents' mean score on Implementation Strategies Self-Efficacy Scale was 64.7% (SD=21, range 0–100%) with lowest confidence in mobilizing needed EHR/EMR changes to facilitate EBP implementation as an strategy (48.9%, SD 26.3). No correlations were found between work setting, Magnet status, age, years in practice/oncology or certification with EBP implementation or competencies. EBP Implementation Self-Efficacy and overall score on EBP Competencies were positively correlated (0.67,  $p<.0001$ ). Oncology nurses felt competent to question clinical practice yet reported EBP knowledge and skills deficits. These findings reveal gaps that direct oncology nurses at all levels of practice to improve EBP skills. Development of action plans to drive high-quality, safe, and cost-effective care is warranted to ultimately improve oncology patient outcomes. This is the first national assessment of oncology nurses' EBP knowledge and competencies. Understanding the current state of EBP attributes will guide development of resources and programs that facilitate implementation of EBP in oncology settings.

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### OPIOD PATIENT EDUCATION—TEXAS

Mary Goggin, RN, OCN®, Texas Oncology, Waco, TX

Category: Patient Education and Safety

Due to the increased complexity and challenges of effective cancer pain management, it is essential to have a standardized, streamlined process in place for patient education regarding the safe use of opioids. Our clinic has established a process to ensure the goal of 100% adherence to a plan to educate patients regarding narcotic safety. Our goal is to have a complete pain care plan on every patient and ensure safety when prescribing opioids. First, a complete patient pain history is obtained. If it is anticipated that an opioid will be prescribed for more than a 90-day period, a patient-physician pain management agreement is signed by all parties and copied to the chart. The oncology nurse reviews the agreement point by point to verify understanding. Side effects of narcotics and symptom management issues are included in this education session. A pamphlet regarding opioid safety is provided to the patient as well. This details how to address an overdose along with the proper use of Narcan. Prior to the prescription being written, the Texas Prescription Drug Monitoring Program (PDMP) is checked. The PDMP website offers valuable information for discussion. Narxcare scores and the overall risk score are noted. Additional risk categories are presented if applicable. The morphine milligram

equivalent per day (MEP) score is noted. The nurse can monitor this and alert the physician if a Narcan script is appropriate. Any issues concerning early refill requests, multiple pain script providers, multiple pharmacies etc. are discussed with the physician with the outcome documented. Prescriptions are written for a maximum 30-day supply with a periodic assessment by the physician to review the effectiveness of the current pain care plan. Subsequent opioid prescription requests are another opportunity for nurse assessment and education. The nurse will assess the pain level, review any side effects, check the MEP and collaborate with the physician to ensure a safe outcome. Due to the proactive education of the patient and the use of documented pain care plans, our clinic has begun to see a decrease in pain crisis calls and after hour requests for emergency medications. The clinic will continue to monitor the effectiveness of this process and refine it as necessary.

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### AUTOLOGOUS STEM CELL TRANSPLANT DISCHARGE PILOT

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Category: Patient Education and Safety

The purpose is to evaluate the effects of conducting autologous stem cell transplant discharge teaching 1 to 3 days prior to the day of discharge. The aims of the project are to discharge the patient's before noon, alleviate anxiety, improve satisfaction with care, and determine the acceptability among nursing in comparison to current practices. Discharge teaching for autologous HSCT inpatients is often done on the day of discharge, it is hurried and does not allow for adequate reflection or questions. The day of discharge can be overwhelming, a lot of information is delivered. The actual discharge time can be delayed, prohibiting the admission of another patient. Research has found that patients receiving stem cell transplants experience significant cost savings when care is rapidly shifted from inpatient to the outpatient setting, with no implications on clinical outcomes. The rapid shift to outpatient can create a burden on the caregiver. Caregivers report feeling responsible for conflicting roles including, "interpreter," "organizer," and "clinician". Research has shown that the impact of this burden can result in poor health outcomes for caregivers including anxiety, depression, and fatigue. Studies that have examined potential ways to benefit caregivers post-transplant recommend proper preparation and education prior

to discharge as a method of improving perceived control. It has been shown to result in improved patient safety, satisfaction, and reduced re-admissions. The team contacts the caregiver early in the admission to discuss scheduling discharge teaching 1 to 3 days prior to the anticipated discharge. This will be followed by a contact closer to discharge to confirm. Nursing developed several tools to standardize the teaching. A teaching guide, discharge checklist and a poster to engage patients were created and implemented. The team will administer surveys to patients and caregivers. The survey will be administered by telephone or in person. In person surveys will be collected at discharge and telephone surveys will be administered two days after discharge. The team will administer a survey to nurses on the units via email. The Press-Ganey® survey results will be considered when evaluating the impact of the intervention on discharge. The implications of this pilot will positively impact the quality of discharge teaching and impact the timely access to care for incoming patients.

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### CANCER AND VENOUS THROMBOSIS

**Maria Socorro Gustafson, MS, RN, OCN®, Northshore University Health System, Glenview, IL**

**Category:** Treatment Modalities

Most patients with symptoms of a blood clot are diagnosed with cancer. Untreated patients with a diagnosis of a Deep Venous Thrombosis (DVT) or Pulmonary Embolus (PE) can lead to death. Treatment of a DVT or PE is necessary to save lives of patients and to prevent recurrence. Low molecular heparin is the standard treatment for cancer associated venous thrombosis. With the advent of new drugs, Direct Oral Anticoagulant (DOAC), is the treatment of choice of patients. The purpose of the project was to (a) identify the different DOAC agents used for cancer patients in the ambulatory setting, (b) discuss the benefits and risks of using DOAC, and (c) evaluate the effectiveness and safety of using DOAC. Interventions: (a) List symptoms of venous thrombosis and explaining why treatment is necessary, (b) discuss different agents used in treating venous thrombosis, (c) identify the DOAC agents, and (d) teaching patients of the risk of a blood clot and to prevent blood clots. Education of patients and constant observation of symptoms will prevent recurrence of blood clots. Evaluating the quality of life of patients with cancer associated thrombosis. The use of DOAC has improved the quality of life of cancer patients with venous thrombosis. Low molecular weight heparin has been the standard treatment of

choice for cancer related venous thrombosis. Clinical trials have shown that DOAC are reasonable alternative to low molecular weight heparin for the treatment of cancer associated thrombosis. The right treatment for a patient will affect the quality of life of patients. Clinical trials demonstrated the effectiveness of using DOAC in cancer patients with venous thrombosis. Further trials will help in preventing blood clots and also improve quality and survival of patients.

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### BLADDER CHEMOTHERAPY AND IMMUNOTHERAPY: UPDATES AND CHALLENGES

**Lisa Hartkopf Smith, MS, APRN, CNS, AOCN®, CHPN, Promedica Hickman Cancer Center, Sylvania, OH**

**Category:** Treatment Modalities

Intravesicular chemotherapy and immunotherapy is the administration of chemotherapy directly into the bladder using an indwelling urinary catheter. The most common indication for intravesicular chemotherapy and immunotherapy is non-invasive bladder cancer. Although intravesicular chemotherapy and immunotherapy is not a new practice, very few nursing articles exist regarding policies, procedures, safehandling practices, side effects, and patient education. In addition to the paucity of nursing literature surrounding this topic, the procedure is moving from urologist offices into infusion centers due to regulations surrounding USP 800. The purpose of this presentation or poster is to provide an indepth look into issues surrounding intravesicular chemotherapy, including indications, medications, procedures for administration, safehandling issues, prevention and management of toxicities, and patient education.

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### ALL ABOARD FOR ONBOARDING ONCOLOGY NURSES

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**Category:** Professional Development

Oncology nursing leadership recognized the need to develop a more standardized orientation process for new oncology nurses in our community-based cancer clinic. Due to the ongoing nursing shortage, new hires with oncology experience are rare. The

previous orientation process was not well aligned with current practice; many competencies were outdated or not applicable to an outpatient setting, making it difficult to onboard an oncology-naïve nurse in a comprehensive manner. The purpose of this project was to standardize the orientation process and competencies for new oncology nurses specifically to each clinical area within the outpatient cancer center. We reviewed our current competency based orientation and identified areas of improvement, which lead us to the development of four specific clinical competency-based orientations (CBO) for our Infusion Center, Oncology Clinics, Radiation Oncology Clinic, and Surgical Clinics. We explored competencies for each clinical area as there was only this one outdated CBO for the whole cancer center. Each clinic specific CBO was explored and competencies put in place that were pertinent to that area of practice. Using CBOs is an evidence based approach that will ensure safe practice during their orientation periods as the competencies are focused on the new employee's first two weeks, 90 days and their first year of employment. Before the development of the CBOs, there was not a standardized way to measure the effectiveness of onboarding new nurses. We anticipate the new CBOs will become more efficient and hold the preceptors more accountable as it gives clear expectations for what the new employee needs to accomplish during the onboarding process. Currently, we are continuing to revise and standardize our process, and plan to implement a six-month trial starting next year. During this trial period, we will meet on a biweekly basis to monitor employee progress, receive feedback from both preceptor and new employee, and adjust the process as needed. We hope to be able to better track the orientation progress via an online CBO, which will provide better accountability and quick review of current or continued needs of the orientee. This standardized orientation process will also include expectations for the first full year of employment, something that so far has been difficult to track using our current orientation process.

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### **CREATING A PATH OF RESILIENCE: THE EXPERIENCE OF YOUNG ADULTS TREATED FOR CANCER IN AN ADULT SETTING**

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Category: Psychosocial Dimensions of Care

The experience of young adults (YA) undergoing treatment, in an adult setting, can be challenging for

patients, families and staff. This can be attributed to patients feeling isolated, the lack of empathy from staff and the incongruence of the environment for this age group. Staff should be cognizant of the impact this may have on a younger patient population. The purpose of this case study is to differentiate the experience of a YA undergoing cancer treatment in an adult setting, rather than on a specialized young adult/adolescent cancer unit. MT is a 21 year-old waitress with no health issues or significant family history. MT presented with complaints of sleeplessness and headaches that remained unresolved with medication. Based on the findings of an MRI that was administered, she was diagnosed with an inoperable brain tumor. Subsequently, she suffered a stroke with residual speech, gait and functional issues. MT expressed feelings of abandonment and isolation. YA may find it difficult to cope with the physical changes and the emotional elements of cancer treatment. Our nursing team was educated on the assessment and psychosocial dynamics of a YA. Our team, with the assistance from Social Workers, explored the manner by which YA associate meaning and emotion to their diagnosis and have collaboratively explored manners in which to assist them in navigating their treatment in an adult setting. The feelings of isolation and frustration in the inability to partake in activities with their peers, are some reasons coordinating care and referring to age appropriate support groups and activities, is imperative. It was crucial that our team provided a “safe space” and acknowledged that some staff needed additional education in order to avoid infantilizing the YA. YAs may not feel that they have the life experience to cope with their diagnosis. Encouraging YA patients to be optimistic, helping them to manage their diagnosis, treatments, and on-going care and utilizing resources to provide financial assistance for transportation are imperative to providing them necessary support. Other options include connecting YA to Gilda's Club–Support Group, connecting with their peers to reduce isolation and making the environment more welcoming and age-appropriate.

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### **CANCER PAIN EDUCATION: A NURSING EDUCATION INTERVENTION IN OUTPATIENT ONCOLOGY**

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Category: Symptom Management and Palliative Care

Pain is a frequent and devastating symptom for patients with cancer across their disease trajectory

despite the availability of efficacious treatments. Over the last decade, oncology care has shifted toward outpatient treatment and services, including pain management and Oncology Urgent Care Clinics are being implemented to facilitate urgent needs. However, evidence to support pain management education and interventions specifically among outpatient nurses is limited. Lack of knowledge about cancer pain and treatments and attitudes regarding pain have been significant barriers to providing quality pain management. The purpose of the project was to provide an educational opportunity for outpatient oncology nurses to gain knowledge, confidence, and comfort in cancer pain management as a result of a new patient population emerging from an Oncology Urgent Care Clinic. Nurses were invited to attend an educational offering on cancer pain management with a pre-test and post-test measure. The investigator-developed questionnaires included demographic information, self-reported levels of confidence and comfort, and pain management knowledge assessment questions. Educational content included information about cancer pain and treatments, organizational policy, and opioid equianalgesia. Descriptive statistics were calculated using frequencies, means and standard deviation to describe the sample characteristics and responses to individual items. Pre and post-knowledge scores were compared using a paired samples t-test; confidence and comfort were compared using Fisher's exact test. Over 90% of participants were confident and comfortable managing cancer pain both before and after the intervention (no significant differences). On average, participants' knowledge scores increased on the post-test (M 92.4, SD 9) as compared to the pre-test (M 55.4, SD 19.5) This difference was significant  $t(22) = 9.14, p < .001$ . The educational opportunity answered a need for nurses in response to an emerging patient population. As Urgent Care Clinics grow in oncology and more urgent needs are treated in an outpatient setting, outpatient nurses will need educational interventions to prepare for these new patient populations. This project resulted in increased nursing knowledge about cancer pain management. Improved preparation of oncology nurses has the potential to optimize pain management and patient quality of life while also decreasing healthcare costs and adverse effects by preventing potential emergency visits and hospitalizations.

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### EXTERNAL VERSUS INTERNAL URINARY DRAINAGE CATHETERS AND CATHETER

### ACQUIRED URINARY TRACT INFECTIONS IN INPATIENT ONCOLOGY

Hannah Holbrook, RN-BSN, Memorial Sloan Kettering Cancer Center, New York, NY; Leslie Perez, RN-BSN, Memorial Sloan Kettering Cancer Center, Hoboken, NJ; Brianna Gill, RN-BSN, Memorial Sloan Kettering Cancer Center, New York, NY

Category: Oncology Nursing Practice

Urinary Tract infections (UTIs) are among the most common types of health care associated infections representing a significant burden in costs, prolonged hospital stays, emotional distress, and morbidity. Although research has proven that the best prevention method is to avoid unnecessary catheterizations and to remove catheters as soon as soon as possible, other methods of decreasing Catheter Acquired Urinary Tract Infections (CAUTIs) are being explored as steps to take when some form of collection device is unavoidable. In the inpatient setting at Memorial Sloan Kettering Cancer Center on M5, where our specialty is Urology and Genitourinary Oncology, our patient population is significantly immunocompromised and therefore our patients are at even greater risk for developing infections such as CAUTIs. As a result, our nurses are questioning how the use of External Urinary Drainage Devices compared to Internal Urinary Drainage Catheter use affects CAUTI rates during inpatient hospital stays. In the two-year period from January 2017 to December 2018, M5 had five months in which the CAUTI rates on our unit were greater than zero and among those five months, our unit's average was 3.96 CAUTIs. However, our goal is to bring that number to zero. Research has shown that adding CAUTI bundle compliance initiatives as well as by utilizing External Drainage Devices when appropriate can significantly decrease CAUTI rates in the inpatient hospital setting. Therefore, we proposed the following interventions as steps to help us reach that goal: the use of External Urinary Drainage Devices when possible rather than Indwelling Catheters; Daily evaluation of Indwelling Catheter need on daily rounding and daily assessments; the development of CAUTI bundle compliance evaluations and daily compliance evaluation forms to bring into use in daily practice to be reviewed by the unit's Nurse Manager weekly; and the initiation and utilization of a CAUTI Task Force to develop CAUTI rate goals at the start of each year for the hospital as a whole as well as individual goals for each unit, to track compliance and CAUTI data monthly, to provide annual re-education for medical staff, and to provide aid to units unable to meet their CAUTI goals consistently throughout the year.

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### **PATIENT REPORTED OUTCOMES SUPPORT EARLY INTERVENTION**

**Jessie Holland, MSN, RN, OCN<sup>®</sup>, Memorial Sloan Kettering Cancer Center, New York, NY; Abigail Baldwin-Medsker, MSN, RN, OCN<sup>®</sup>, Memorial Sloan Kettering Cancer Center, New York, NY; Rori Salvaggio, MS, RN, NEA-BC, Memorial Sloan Kettering Cancer Center, New York, NY**

**Category: Symptom Management and Palliative Care**

In cancer patients undergoing active treatment the use of Patient Reported Outcomes (PROs) combined with nursing intervention, specifically coaching, has been shown to reduce symptoms, allow patients to stay on treatment longer, reduce emergency department visits, and increase overall survival. In 2018, Memorial Sloan Kettering Cancer Center introduced a program, InSight Care, that identified patients at high risk for treatment-related symptoms and implemented the use of PROs to monitor and intervene proactively to prevent symptom escalation. The purpose of this abstract is to describe the clinical response to PROs submitted by patients undergoing active cancer treatment. Enrolled patients receive a daily symptom survey via the patient portal. A dedicated team (DT) of Registered Nurses (RN) and Advanced Practice Providers (APP) monitor PROs and respond to alerts for moderate (yellow) and severe (red) symptoms. The DT evaluates the PROs in the context of the patient's baseline health status, recent clinical interventions, and symptom trends. The alerts associated with patient responses support the DT in decision making. The DT documents the care they provide in response to the PROs in our clinical documentation system. Between October 2018 and July 2019, 80% of patients had triggered an alert for constipation, 74% had triggered an alert for moderate pain, and 64% had triggered an alert for severe pain. 92% of patients reported other symptoms not captured in the PROs assessment tool which automatically triggers an alert for the DT in case the symptom warrants immediate intervention. We evaluated the DT's documentation and found that 2,439 alerts (663 red; 1776 yellow) were documented in 1,806 nursing communication notes. 91% of documentation associated with alerts listed "symptom management" and/or "reassessment" as the reason for communication. Although "other" and constipation triggered the highest number of alerts, the most common symptom assessment documented by the DT was pain. A chart review of red alerts was conducted for one month, the most common nursing intervention was education;

teaching about medication, self-care, and side effects were predominant. InSight Care uses PROs between visits, providing an opportunity for proactive symptom management. Symptom alerts allow RNs and APPs to identify when patients are developing toxicities and coach them through the appropriate interventions. A measure of the impact this program has on Urgent Care presentation is planned.

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### **ADDRESSING SEXUAL HEALTH IN BREAST CANCER SURVIVORS**

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**Category: Survivorship**

Many breast cancer survivors experiences changes in their sexual health related to cancer treatment. Not only do breast cancer survivors endure life-altering surgeries and treatments, they are faced with alterations in their health. Sexual dysfunction is one such health alterations. This change in sexual health can negatively impact quality of life. The National Comprehensive Cancer Network (NCCN) recommends that sexual activity, impact of cancer treatment, and sexual concerns should be considered at survivorship care visits. This abstract discusses an innovative way that sexual health was addressed in the survivorship care plans of breast cancer survivors. In a surgical oncology practice, the nurse navigator met with the surgical oncologist and patient to discuss the patient's treatment plan and survivorship care shortly after the diagnosis of breast cancer. The nurse navigator's presence from the outset of cancer care helped facilitate rapport with the patient. Approximately 6 months after diagnosis, the nurse navigator met with the breast cancer survivor to review the survivorship care plan. Because the nurse navigator had a rapport with the survivor, the survivor was encouraged to share concerns regarding sexual health at this visit. The nurse navigator then provided a resource book on sexual health. If indicated, the nurse navigator would then refer the patient to a gynecologist or other health care providers for sexual health concerns. In 2018, the nurse navigator facilitated 126 survivorship care plans, and in approximately 89% of these care plans, sexual health was discussed. The resource book was provided to the breast cancer survivor. With over three million breast cancer survivors in the United States, it is important to assess and address health alterations that result from breast cancer. Including sexual health

as part of the survivorship care plan is an opportunity to address common concerns, often overlooked by oncology healthcare providers. This successful implementation of sexual health assessment and resource provision was predicated on the rapport built with the survivor so that the patient felt comfortable sharing concerns about a sensitive and personal topic. The survivorship careplan offered a dedicated time to discuss the survivor's health concerns including sexual dysfunction. Additionally, a copy of the survivorship careplan was communicated to other pertinent health care providers.

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### IV PUSH . . . TO DILUTE OR NOT DILUTE?

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Category: Oncology Nursing Practice

Institute for Safe Medication Practices (ISMP) recommends nurses do not dilute IV push medications. Despite these recommendations, ISMP surveys reveal a large percentage of respondents participate in this practice (83% in 2014 and 84% in 2018). At an ambulatory NCCN clinic, nurses report diluting IV push medications for the following reasons: to improve patient tolerance, to increase ease of administering small volumes, and to allow for use of syringe pump administration. There is variation in practice related to amount of dilution, source of diluent and infuse over time. A quality improvement project was undertaken to define guidelines for when nurses can dilute IV push medications and standardize this practice. An interdisciplinary team of pharmacists, advanced practice nurses and unit-based educators was formed. The team interviewed staff to assess current practice and reviewed dilution guidelines from drug resources (Micromedex, UpToDate, Davis). An organizational policy was developed outlining: 1.) drugs that nurses may dilute, 2.) diluent type 3.) diluent volume, 4.) rate of administration, 5.) diluent source, 6.) labeling. To support this significant practice change, multiple training methodologies were utilized including: electronic learning module, video illustrating correct preparation, in-person education and posters. The implementation team evaluated supplies necessary for the practice change. Some of these included normal saline vials, adequate supply of anti-stick needles and syringe labels that met the

appropriate requirements. The innovation resulting from this process improvement was a policy defining medication dilution standards for nursing practice. The implementation of these new standards provides an opportunity to reinforce safe medication practices such as: not using pre-filled saline syringes to dilute medications, use of anti-stick needles when drawing up medications, sequence of preparation and labeling requirements. This practice change is to be implemented late Fall 2019. Measures of success include completion of electronic learning module, observation of correct IV push practices and decreased use of prefilled saline syringes.

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### OUR JOURNEY DOWN THE YELLOW BRICK ROAD TO OP-35

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Category: Symptom Management and Palliative Care

Care variation and cost in oncology care represent a growing burden for our health care system. In 2010, the cost of oncology care was estimated nearly \$125 billion; by 2020, this is projected to reach almost \$160 billion. The literature revealed, 1) Higher spending is not associated with higher quality and has thus been identified as a marker of inefficient and low-quality care; 2) Acute care utilization is the single largest driver of regional spending variation in oncology care, accounting for 48% of spending and 67% of variation. Centers for Medicare and Medicaid Service (CMS) proposes to add outcome-based quality measure to decrease care variation and decrease cost by with the introduction of the OP-35 measure. This new measure focuses on cancer patients who receive hospital-based outpatient chemotherapy, and who have an inpatient admission or Emergency Department visit within 30 days for one of the ten preventable conditions. Those conditions are: Anemia, Nausea, Dehydration, Neutropenia, Diarrhea, Emesis, Pneumonia, Fever, Sepsis. In 2020, CMS will publicly publish individual organization's quality performance. As a participating member of Oncology Care Model (OCM), the focus is on reducing unnecessary emergency department (ED) utilization and inpatient admissions to reduce costs and ultimately achieve shared savings. Opening cancer urgent care clinic with two exam rooms, staffed with two advanced practice providers with restrictive schedule, and two registered nurses to see patients Monday through Friday from 0700-1930

has its challenges and lessons learned. Since opening the clinic in February 2019, 363 patients we seen with at least one of the 10-preventable diagnosis. Literature reveals three primary measures of acute care for cancer patients: Emergency Department (ED) visits, acute hospitalizations, and 30-day rehospitalizations. Cancer patients visit the ED because of fever, pain, dehydration, abdominal complaints, and respiratory concerns. When patients do present to the ED, they are commonly admitted to the hospital. Reduction of unplanned acute care is a major priority for clinical transformation in oncology; The literature revealed five strategies to reduce unplanned acute care for patients with cancer: 1) Identify patients at high risk for unplanned acute care; 2) Enhance access and care coordination; 3) Standardize clinical pathways for symptom management; 4) Develop new loci for urgent cancer care; and 5) Use early palliative care.

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### **USING A FALL SAFETY CHECKLIST DECREASES INCIDENCE OF INPATIENT FALLS AMONG ONCOLOGY PATIENTS**

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*Category: Patient Education and Safety*

Preventing patient falls is one of the biggest challenges facing health care workers today. During clinical rounds at our NCI-designated comprehensive cancer center, it was noted that adherence to the hospital's fall prevention standards was inconsistent. This observation triggered members of our Fall Prevention Committee to ask whether the use of a Fall Safety Checklist might prevent intervention omissions and increase adherence to the hospital-approved fall prevention protocol. The purpose of this evidence-based project (EBP) project was to evaluate the impact of registered nurses using a "Fall Safety Checklist" (FSC) during shift handoffs on the incidence of falls with and without injury among hospitalized oncology patients. The secondary aim was to evaluate staff perceptions of the Fall Safety Checklist. This evidence-based project used a Fall Safety Checklist (FSC) during shift handoffs to complete a point-by-point review of the fall prevention interventions mandated by the hospital's fall prevention protocol. Data were collected for 90 days. All acute care areas decreased their number of falls/1000 patient days. There was a 33% decrease

in the rate of falls with injury. In collaboration with nursing leadership and the Nurse Practice Council as part of our shared governance model, the Fall Safety Checklist was implemented as a standard of practice in all acute care areas. The intervention of using a FSC seemed to have had a positive effect on decreasing falls and falls with injuries among hospitalized oncology patients. The results for this intervention were not as dramatic as those reported by Johnston and Magnan (2019). These less dramatic findings compared to those reported by the Johnston and Magnan (2019) study may be due to the fact that the study was conducted on a single unit with many unit level champions and recorded data for 30 days whereas this project collected data for 90 days throughout the hospital. In the Johnston and Magnan (2019) study, the single unit had an initial extremely high fall rate providing them with greater opportunity to improve fall rate by chance alone. Oncology nurses might consider that small, deliberate changes directed at improving communication during shift handoff can lead to substantial improvements in patient safety.

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### **THE USE OF PATIENT ASSIGNMENTS IN THE OUTPATIENT CLINICAL SETTING TO IMPROVE TIME MANAGEMENT AND DOCUMENTATION**

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*Category: Oncology Nursing Practice*

Tennessee Oncology is a large, privately-owned community oncology practice with 30 locations throughout middle and east Tennessee. Clinics vary widely in size and days of operation, but all have experienced challenges with scheduling, staffing, and patient volumes. Complete and timely documentation became increasingly difficult for clinical staff due to internal and external system changes and the transition to electronic health records. To better manage continued changes in health care and increased documentation requirements, patient assignments were implemented to ensure quality care and thorough documentation in real time. Historically, clinics used a round-robin method for patient care in the treatment rooms. Based on availability, nurses would alternate caring for patients as they presented for treatment, which worked well with paper charting and simplified roles, but as technology advanced and clinics expanded, they outgrew this workflow. The idea of patient assignments was presented as a tool to help manage the increasing patient traffic, as well as to allow staff to better prepare for the day with their



assigned patients. Assignments were implemented at many of our sites and managers, or designees, began distributing them to nursing staff each day prior to shift start. Staff response to the patient assignment implementation varied, but all were willing to pilot the change, and the resulting outcomes were positive. By preparing ahead of time, charts are reviewed for ordered regimens and known patient issues, questions are answered by providers, and educational material is gathered prior to patient arrival. Because of these improvements, staff can provide care more quickly upon the patient's presentation to the treatment room. Patient assignments have also proven to be helpful for identifying gaps in our scheduling process, as it provides a different view than the usual patient to nurse ratio by further detailing how many patients each nurse is providing care for in a specified time frame. This has helped guide our front office in the spacing of treatments when scheduling. While this was a large change for our practice, we have seen only positive outcomes related to the implementation of this practice.

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### **STATSEAL DECREASES CENTRAL LINE BLEEDING IN BLOOD AND MARROW TRANSPLANT PATIENTS**

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Category: Patient Education and Safety

Central line-associated Bloodstream Infection (CLABSI) remains a challenge in an urban academic NCI-designated comprehensive cancer center Blood and Marrow Transplant Unit despite current interventions. Prior to using any product to stop bleeding, data showed that 50% of newly placed central lines bleed after placement, requiring multiple dressing changes. According to research, two or more dressing disruptions significantly increases the risk for CLABSI. Despite the use of pressure dressings and a hemostatic device, many of these lines still required additional dressing changes. StatSeal is a topical hemostat that quickly forms an occlusive seal, stopping the flow of blood and exudates. It works independently of the clotting cascade and creates a hostile barrier to microbial penetration. The purpose of this project was to determine if StatSeal could prevent bleeding at the exit site of central lines placed in Cancer Center patients. In collaboration with the hospital's education department, infection prevention and BioLife,

LLC, StatSeal was trialed from January to March 2019 for all Cancer Center patients. StatSeal unit champions were recruited and trained on product use and evaluation. Clinical staff was trained on the application and dressing change process. Specific written instructions were provided to all participating units to ensure consistency of application. By working in conjunction with Interventional Radiology, it ensured that Cancer Center patients had StatSeal placed with a new central line. Evaluation forms for insertion/application and subsequent dressing changes were collected on a bi-weekly basis. Evaluation forms indicated that 75% of respondents recommend the use of StatSeal. StatSeal was placed on 22 BMT patients during the trial, with no bleeding and no dressing disruptions. This not only decreases the risk for CLABSI but also decreases costs associated with central line dressing changes. The findings also showed that the foam ring was difficult to place on actively bleeding patients. After completion of the trial, it was recommended that StatSeal be implemented hospital-wide for bleeding lines. The issues brought up during the trial were addressed and re-education completed. StatSeal has been used in BMT since March 2019. As a next step, the effect of StatSeal on incidence of CLABSI will be determined.

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### **IMPACT OF A COMPUTERIZED PAIN REASSESSMENT TOOL**

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Category: Symptom Management and Palliative Care

Assessment and reassessment of pain is a critical step to improving an oncology patient's physical and psychological health. The Joint Commission came out with new guidelines in 2017 appointing clinical leadership members to engage staff with the goal of improving pain management. The purpose of this study was to review current evidence-based findings related to nurse pain reassessment. The study sought to determine if a computerized pain reassessment tool had an impact on nurse pain reassessment percentages over a 13-month period. The outcome of this project was the implementation of a computerized pain reassessment tool in the electronic medical record, which reminded nurses when it was time to reassess a patient's pain level after pain medication was administered. Data on 54 oncology nurse pain reassessment scores at a large academic hospital were collected over 13 months and looked at overall

pain reassessment percentages. The study showed an increase in nurse pain reassessment scores from 70.95% in January 2018 to an 8-month sustained stretch of over 90% pain reassessment by January 2019. The study's limitation included a small, but sufficient sample size, being implemented on only a 36-bed hematology oncology unit. Further research could be conducted hospital wide to gain a larger sample size.

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### **HYPOPHYSITIS AND ADRENAL INSUFFICIENCY: A SILENT YET MAJOR SIDE EFFECT OF IMMUNOTHERAPY**

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*Category: Oncology Nursing Practice*

Immunotherapy is revolutionizing the oncology field by its novel mechanism of action harnessing the immune system to boost the body's natural defenses to fight cancer. Immunotherapies are designed to promote an immune response by stopping or slowing the growth of cancer cells, but it does not come without side effects. As the field and therapy landscape evolves to include these drugs in almost every cancer type, it is imperative to highlight those specific adverse effects. This presents an opportunity to develop oncology nursing education and guidelines. Understanding side effects of Immunotherapy drives the nurse to educate the patient and family on the treatment and potential side effects before they become significant. Immunotherapy can disrupt the endocrine system, and thyroid abnormalities are commonly reported. However, one of the common endocrine glands overlooked is the pituitary gland. Inflammation of the pituitary gland is known as hypophysitis. Hypophysitis presents with vague symptoms, such as of low-grade fever, headaches, severe fatigue, episodes of hypotension, electrolyte abnormalities, and frequent visits to the emergency department (ED) due to dehydration without a source. These signs should lead the nurse to consider further workup. Early detection of hypophysitis is vital due to the potential of life-threatening adrenal crisis and other endocrine abnormalities that may occur. Prior to starting immunotherapy it is important to obtain baseline thyroid studies. Labs are monitored frequently for early detection of potential complications. If symptoms occur the nurse should expect additional orders including a cortisol level and diagnostic MRI of brain. Treatment for hypophysitis

usually consists of corticosteroids and endocrine replacement. After diagnosis and treatment, the oncology nurse coordinates care with the interprofessional team. If adrenal insufficiency is permanent, the need for continuous monitoring and treatment changes are required. Therefore, the nurse has a significant role in recognizing the subtle symptoms that can potentially occur throughout treatment. Immunotherapy is becoming an innovative and promising cancer therapy. Immune-mediated hypophysitis poses a new threat in the era of emerging immune checkpoint inhibitors for cancer. Lack of awareness results in delayed diagnosis and thus inadequate hormone replacement, which can lead to death. It is important for the nurse to recognize all potential serious side effects and provide patients with the proper education and treatment to ensure optimal outcomes.

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### **NURSE IDENTIFIED BARRIERS TO ADVANCE CARE PLANNING**

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*Category: Oncology Nursing Practice*

Advance Care Planning (ACP), an important but often neglected component of nursing care, is associated with lower rates of resuscitation, ICU admissions and the cost of care. Lack of ACP can negatively impact the patients' quality of life and can increase depressive disorders in caregivers. In 2018, a multispecialty clinic at one of the 71 NCI-designated cancer centers implemented a system to track ACP discussions by evaluating whether providers completed a 'goals of care' note in the patient's Electronic Medical Record (EMR). Clinical Leadership set 80% as a benchmark goal for all new patients to have an ACP note included in the EMR. In February 2019, completion rates were 53%. By June 2019, completion rates rose to 67%. The purpose was to address root causes that prevent achieving benchmark ACP notes in the EMR, nurse case managers (NCMs) were surveyed. Based on a literature review and informal interviews with NCMs, in March 2019 an NCM survey about ACP practices and barriers was developed and distributed. NCMs (n = 38) were asked to identify and rank five top barriers to ACP note completion and to comment about barriers. NCMs (n = 21) identified these five top barriers to ACP note completion: lack of time (86% reported in top 5), difficulty initiating the conversation (61%), belief that ACP is an inappropriate discussion at first visit (57%), forgetting to document (57%) and lack of physician support (48%). Survey results prompted additional strategies to change staff perception about

ACP and boost ways to facilitate ACP discussion with patients: Strategies were discussed one-on-one with NCMs and at staff meetings. Plans are in place to provide NCMs with a link to an EMMI video about ACP, which they will be able to provide to patients. All clinic rooms will be stocked with ACP paperwork and ACP patient education materials. An ACP patient questionnaire was created and will be distributed at patient check-in. Based on surveying NCMs, barriers to completing ACP were identified which led to additional strategies to increase ACP note completion in patients' EMR. Additional strategies include improving EMR functionality and securing provider support so that all patient EMRs include ACP notes.

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### **TRIAGE: EFFICIENCY OF TRIAGE TEAM VS THE ONCOLOGY INFUSION NURSE**

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**Category: Oncology Nursing Practice**

Many infusion centers have triage nurses who field symptom related phone calls. Although the triage nurse has access to the EMR they do not know the patients and their family members. Infusion nurses spend numerous hours with the patients developing a relationship and trust. Oncology patients that are facing a life threatening illness can be reluctant to talk to someone they don't know or trust. A study done by Moore et al. (2002) showed that there was a direct correlation between patient satisfaction and overall compliance to instructions. In that study it was shown that 88.2% of patients were compliant, patients who were satisfied were compliant four times as much compared with dissatisfied callers. Symptom calls sent through triage will be identified over a one month period of time. Those patients will be given a brief survey to complete regarding how they felt when speaking to a nurse who they never met and if they felt comfortable with this. It will be accessing if they are more comfortable speaking with a nurse who they already have an established relationship compared with one they do not. We will be determining if continuity of care affects a patient's level of comfort vs having their issue addressed regardless of who the individual is they are speaking with. After receiving information, we will be able to see if having triage nurses who have never met or cared for the patient can provide effective direction that the patients are comfortable following. We will evaluate if

the patients were given the same direction through an established and trusted relationship would it change the degree with which the directions were complied with. As we look at the results we will determine if we are allowing our patients to receive the best care. We will also try to evaluate if we are giving them the best support they need.

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### **COMBINING PREOPERATIVE RISK ASSESSMENT FOR POSTOPERATIVE NAUSEA/VOMITING (PONV) WITH A CLINICAL DECISION SUPPORT SYSTEM**

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**Category: Treatment Modalities**

The primary purpose of this project is to explore risk stratification for postoperative nausea and vomiting (PONV) when combined with targeted prophylaxis that includes a clinical decision support system (CDSS). This CDSS will guide anesthesia providers in their interventions to prophylactically address and ultimately reduce PONV in oncology patients undergoing surgery with general anesthesia. PONV can result in clinically significant complications for patients, including: electrolyte imbalances, development of a pneumothorax, aspiration pneumonia, wound dehiscence, a delayed recovery time, and a lengthened hospital-stay. PONV is often inconsistently screened, inadequately monitored, and poorly prevented in many hospital systems. A search of CINAHL and PubMed databases using boolean search parameters and key words was conducted. From this search, a total of 12 articles and 2 guidelines were critically appraised. The findings affirm the need for prophylaxis in patients at risk for PONV through risk stratification by the utilization of Apfel, Koivuranta, or similar scoring systems. Furthermore, the findings either identify the need for additional support in decision making or affirm the need for targeted prophylaxis and/or a CDSS that guides anesthesia providers in methodologies to treat PONV prophylactically. Adopting a CDSS and applying it to an institution's existing risk stratification will require a collaborative approach and an interdisciplinary team comprised of anesthesia providers, perianesthesia nurses, and other staff stakeholders. The medications or interventions used to prophylactically treat a patient according to their risk stratification will require anesthesia support, be evidence-based, and must be specific to the hospital's formulary.

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### **STANDARDIZING A NON-OPIOID POST-OPERATIVE PAIN REGIMEN FOR GYNECOLOGIC ONCOLOGY PATIENTS: A TEAM APPROACH**

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**Category: Coordination of Care**

Because of their high-addictive nature, there has been an increased focus on the reduction of opioid prescribing in post-surgical patients. Studies have revealed that patients continue to be prescribed opioids at discharge from the hospital. In an effort to improve patient outcomes, the ERAS (Enhanced Recovery after Surgery) Society was formed internationally and developed perioperative care recommendations to improve recovery. Following ERAS recommendations, the Gynecology Oncology group at the Wilmot Cancer Institute, in conjunction with anesthesiologists at Highland Hospital, adopted a non-opioid pain regimen for patients having non-invasive laparoscopic gynecologic surgery using a combination of Tylenol and Ibuprofen. The primary purpose was to assess the effectiveness of this non-opioid regimen and secondarily determine the number of patients prescribed opioids at discharge. Pre-operatively, if not contraindicated, patients were instructed to take Tylenol 650mg alternating with Ibuprofen 600mg every six hours for 5–7 days upon discharge. A nurse to patient telephone call was made. A performance improvement audit tool developed by our oncology nursing team collated information which included evaluating the effectiveness of the regimen and reviewing discharge medications. Because the majority of gynecologic oncology surgery done is minimally invasive, the audit included only those patients. Over the past 8 months, 74% of patients reported effective pain relief while following the prescribed non-opioid regimen, with 7 patients using only Tylenol as needed and one patient requiring Percocet. One patient did not report needing any analgesia. Twelve patients were prescribed opioids at discharge, but did not take them. This initiative suggests that a non-opioid pain regimen can be effective in patients undergoing minimally invasive surgery. The sample size was limited and factors such as diagnosis were not considered. Future initiatives may delineate patients best served by this regimen and help

to reduce the number of opioids prescribed. Oncology nurses are instrumental in the coordination of care and education for their patients. Improved team communication, consistent pre and post-operative teaching, education for gynecology oncology residents and new providers can lead to a decrease in opioid prescribing, standardization of a post-operative pain regimen and ultimately improved patient outcomes.

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### **BRIDGING THE GAP TO CREATE HARMONY: A HEALTH SYSTEM COLLABORATION TO ENSURE USP 800 COMPLIANCE**

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**Category: Patient Education and Safety**

As of December 2019, hospital systems will be required to meet USP 800 standards to reduce healthcare workers' risk of injury from hazardous agents. Incorporating these standards into practice will achieve compliance with state boards of pharmacy, the FDA, CMS, and the Joint Commission. A substantial number of agents have been added to the hazardous list significantly increasing the impact across all areas of hospital systems beyond oncology areas. This large academic medical center identified the need to meet these standards in multiple inpatient and outpatient areas across the system of hospitals and outpatient clinics. A gap analysis identified many areas that required policy and practice changes. Category 2 and 3 drugs are administered in many areas across the system. Most oncology areas were compliant with some minor gaps. A team of representatives from all areas was identified and a working subcommittee that met weekly and reported to the larger administrative committee monthly. Category 1, 2, and 3 drugs on the USP list were compared with the system formulary and areas of administration identified. Review of each agent and the specific handling requirements for each drug was time consuming. Opportunities to change to lower risk formulations were submitted for institutional administrative committee approvals. Policies were revised accordingly. Many areas for change were identified such as Human Resources for Job description revisions, the legal department for correct wording, and onboarding practices to include risks to new employees. Potential

additional costs to meet the requirements of USP 800 were communicated to administration for fiscal budget planning. Alert mechanisms were identified including notes in the EMR and drug dispensing units. Administration techniques, personal protective equipment, and linen services were addressed. An education plan was developed recognizing constraints of time and finances with the need to provide adequate knowledge to system staff. Following implementation at the end of 2019, compliance will be monitored using direct observation and follow-up surveys. This program was developed to include a method of ongoing evaluation as well as maintenance of the drug formulary list to accommodate new drugs and future updates to the USP 800 drug list. Continued awareness of changing standards will ensure the system is protecting staff and patients from the risks of hazardous agent exposure.

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### **I DON'T WANT TO SHARE! REDUCING NEGATIVE OUTCOMES IN NEUTROPENIC PATIENTS IN A CORRECTIONAL CARE SETTING**

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**Category:** Patient Education and Safety

Many oncology treatments cause myelosuppression, resulting in cytopenias including potentially fatal neutropenia. The correctional care setting has unique challenges for protection of these patients to reduce readmission and mortality. In this setting, patient rooms have 2 to 3 patients in one room, sharing a bathroom. Oncology patients at various stages of treatment may be cohorted with Medical Surgical patients with undiagnosed conditions such as TB, pseudomonas, clostridium difficile, and gastroenteritis. This inpatient oncology unit in a maximum security correctional care hospital located on the campus of an academic medical center provides care for a significant number of oncology patients with the potential for neutropenia. Usual nursing care to reduce negative impact of neutropenia requires adjustment considering the unique setting such as security issues, unit layout, lack of single patient rooms, and challenging environments on discharge to remote prison units. Nursing staff provide care based on recommendations of the Oncology Nursing Society and the National Comprehensive Cancer Network

to prevent infection and reduce negative outcomes. Hand hygiene between patients to prevent cross contamination and other infection control measures such as daily chlorhexidine baths, venous catheter management, and nasal decolonization is often thwarted by multi-patient rooms. Patient education is provided to increase patient understanding of measures to reduce exposure to infection sources but this is challenging for patient adherence. Considering bed availability constraints, the bed placement department was resistant to recognize and respond to nurses' requests to provide single room placement for patients at risk. Working collaboratively with the Department of Epidemiology a process was identified to place neutropenic patients (ANC <1000/mm<sup>3</sup>) in a private room. Nursing staff are often the identifier of need. Education of nursing staff to communicate the need to the bed placement staff has been implemented. Epidemiology nurses are available to provide support for these requests. Providing an appropriate room has been successful following education of nursing staff and bed placement staff. Monitoring for incidence of neutropenic fever continues and will be reviewed quarterly to determine the success of this approach. After evaluation of this project a review of additional impacts to decrease risk will be ongoing. This project identified several potential opportunities such as providing handwipes with meal tray cutlery.

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### **DENOSUMAB (XGEVA), AN ALTERNATIVE TO HEMIPELVECTOMY IN THE TREATMENT OF MASSIVE BONE METASTASIS**

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**Category:** Treatment Modalities

Denosumab is a monoclonal antibody used in preventing skeletal-related events in bone metastasis from solid tumors. However, the effect of denosumab in treating destructive bone lesion with pathological fracture and its associated nursing plan is unclear. Here, we present a case with pelvic metastasis successfully treated with denosumab along with our patient-centric nursing plan. A 78-year-old woman presented to our OPD with severe progressive right buttock/hip pain and walking difficulty for 6 months. Radiographs showed multiple radiolucent lesions over right iliac/acetabulum/pubis bone with massive bone destruction and pathological fracture. Further examinations revealed lung adenocarcinoma with EGFR mutation, cT4N2M1b, stage IVB with pelvic metastasis. Gefitinib was given and showed

great response. Nevertheless, her right hip pain persisted despite high-dose pain-killers, and the patient wished for surgical intervention. Hemipelvectomy was proposed by orthopedists due to massive pelvic bone destruction. However, due to the high risk of operation, denosumab was administered after discussing with the patient. Concurrent nursing care focusing on denosumab treatment for massive destructive bone metastasis was conducted. Denosumab (XGEVA) was given 120 mg subcutaneously every 4 weeks. Vitamin D and calcium supplements were encouraged after every injection. No fixation was performed, but limited hip abduction was informed to reduce pain and increase joint stability. Oral hygiene was emphasized to prevent jaw-related complications. After 4 months, significant bone formation and union of pathological fracture were noted on imaging studies and no adverse events occurred. Fortunately, the patient could walk painlessly without any assistive devices. Most articles focused on the role of denosumab in decreasing the incidence of skeletal-related symptoms. Here, we present an alternative role of denosumab in treating pathological fracture and massive bone destruction and our individualized nursing plan. Previous studies showed that denosumab reduces the risk of moderate-to-severe pain by 16%. In our case, the patient experienced less pain after denosumab administration and pain killers were not needed within 3 months, and would walk without any assistance after 4 months. Denosumab could be an alternative treatment option for patients with inoperable massive and destructive bone metastasis. Appropriate nursing plan focusing on diet education, caring plan for specific joints, and prevention of adverse events would help achieve a better clinical outcome.

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### **ORAL ONCOLYTIC MANAGEMENT: TRANSFORMATION OF CLINICAL PRACTICE THROUGH SAFETY AND QUALITY INITIATIVES**

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Category: Patient Education and Safety

Safety and quality with oral agents for cancer (OAC) was identified as an opportunity for patient care in an Outpatient Cancer Center in a community hospital. The toxicity profile and complexities of adherence coupled with the insurance and financial burden for

our patients was a barrier for successful prescribing and adherence practices. As the oral oncolytic patient population increased, the fragmentation of the workflow from prescribing through authorization, delivery, education, and toxicity assessment was concerning. Accuracy of prescriptions, timely dosing and missed toxicity appointments were identified as top challenges. In addition, multiple staff involved in the oral oncolytic workflow led to lack of continuity and fragmentation of care. The barriers to safe quality care with oral oncolytics required a new approach for our institution. Review of the literature and regional practices led to a task force which identified key objectives. Identifying an experienced oncology staff nurse to lead the care for this unique patient population was critical in making positive change. Goals of safe prescribing by providers, expedited authorization and medication delivery and patient education were priorities of the task force and the STEEEP Methodology was the framework for our initiative. Interventions included the creation of a detailed policy and procedure to govern the quality initiatives for the cancer center team. The procedure outlined the steps related to physician ordering, chemotherapy safety checks, triage inbox procedures, patient education with oral agents in hand, and an updated toxicity assessment specific to oral oncolytics. The procedure covered both the initial ordering and maintenance of the oral agents. The updated workflow began October 2018 and the team met often to evaluate the changes made with the new processes and education of key staff. Accuracy of prescribing was significantly improved with hard wired chemotherapy checks with 2 RNs. Financial authorizations were expedited and enhanced communication between the specialty pharmacy and patient decreased delays in oral agent delivery. Patient/family education once the medication was delivered to the home was a required outpatient visit and reinforced by the providers as critical to starting a new medication. Oral toxicity assessment during follow up appointments and creating a clear mechanism for communication between providers, triage team and the oral oncolytic nurse provided for a safe administration process with improved adherence by the patient.

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### **PPE COMPLIANCE AND SURFACE CONTAMINATION**

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Category: Oncology Nursing Practice

Surface contamination is an ongoing issue that puts health care workers at risk for chronic health problems. PPE compliance is a common deficiency among

oncology nurses that can result in increased surface contamination. Demonstration used to show how hazardous drug (HD) can be transferred to surfaces with improper PPE compliance. The commercially available product Glow germ was used to represent HD on outer surfaces of IV bag (assuming HD can be present on outer IV bag from pharmacy). Black light used to show where the glow germ transfers on surfaces. A demonstration of standard HD administration was performed using improper PPE usage (e.g. not removing gloves and no gloves). Then the proper PPE usages to show the results. Transfer of HD present on gloves/hands; IV pole; Computer; keyboard; mouse; scanner for drug; telephone at nurses' desk for those who used no gloves; counter tops at bedside and drawers in patient rooms; hands of the cosigner nurse from computer usage with improper PPE. With proper removal of outer gloves at correct time, there was no obvious presence of HD found with black light on surfaces. It was only noted on the outer glove that was removed at appropriate time and on the inside of chemo bag delivery bag. A pre-demonstration survey revealed 100% of participants agreed that HD are harmful to more than just themselves. Also 1/3 surveyed agreed that the harmful effects of HD can reach as far as family, pets and fetus. Only 1/3 of those surveyed wear the proper PPE. The remaining 2/3 wear varying forms of partial PPE. All who were surveyed agree that surface contamination occurs. On the post demonstration survey, everyone agreed that demonstration was effective and recommended for others to see. They all know surface contamination can occur and want to make their work environment safer by using proper PPE. In observation few weeks after demonstration there is a noticeable difference in PPE compliance in staff. A visual demonstration can highlight the importance of PPE compliance in reducing surface contamination.

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### **SICKLE CELL PAIN MANAGEMENT**

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**Category: Treatment Modalities**

The University of Pittsburgh Medical Center (UPMC) Hillman Cancer Center (HCC) at McKeesport cares for a wide variety of oncology and non-oncology patients. Sickle Cell patients were frequently demanding pain medications to treat pain. Sickle cell patients were unhappy with pain management at other centers leading patients seeking pain help at UPMC HCC McKeesport. HCC nursing staff noted that patients were mis-using the support offered by reporting to

HCC frequently and inappropriately for pain management. The physician and nursing teams partnered to develop pain management guidelines at for the sickle cell patients to follow. The aim of the guideline is to set rules the patients need to adhere to in order to utilize the clinic for pain management and to appropriately manage patients' pain in clinic in conjunction with utilization of appropriate use of home medication to overall decrease hospital readmission rates and emergency room (ER) visits. Interventions for guidelines were developed by nursing management. Guidelines included treatment visits two times a week. Patients were not ordered more than 2 mg Dilaudid with intravenous fluid treatment. Following clinic treatment, patients are not permitted to report to ER for pain management. Pain medication scripts only provided to patients every two weeks with monthly physician visits. Guidelines, implemented January 2019. Staff and patients were educated and over a five-month period the transition took place. Initially a predetermined group of patients were selected to participate. Use of guidelines and sickle cell patient specific treatment plan resulted in decreased hospital admission rates most noted in one patient. Patient specific ER visits/hospital admission rates from Dec 2018-June 2019, reported to ER eight times and had 4 admissions. From end of June 2019 until Mid-Sept 2019 patient reported to the office per guidelines and did not have a single admission or ER visit during those three months. Both staff and patients verbally reporting satisfaction with expectation of guidelines. Staff verbalized improved comfort in caring for sickle cell patients, patients report feeling a sense of respect and care from staff. Future goal, offer the clinic treatment with guidelines to new sickle cell patients and maintain current patients on the plan. To improve care, plans are to include integrative modalities for supportive care and pain management.

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### **NURSING EXPERIENCE IN THE TREATMENT OF A LUNG ADENOCARCINOMA WITH DISTAL CLAVICULAR METASTASIS PATIENT**

**Ting Lin, RN, Far Eastern Memorial Hospital, New Taipei City; Karl Wu, MD, Far Eastern Memorial Hospital, New Taipei City**

**Category: Symptom Management and Palliative Care**

Lung cancer is the third most common form of tumor (about 30-40%) spreading to the bone. Among the patients of non-small cell lung carcinoma, the most common site of bone metastasis are spine and ribs. By comparison, clavicle is an extremely rare site of

metastases. Thus, we described a rare case of non-small cell lung carcinoma with metastasis to the right distal clavicle and elucidated our clinical management process, including clinical and nursing field. A 56-year-old female without any systemic disease presenting with an intermittent pain, especially at night, over right clavicle for about 3 months visited our OPD for help. After admission, we performed a series of treatments for her. Systemic chemotherapy; palliative radiation therapy (total dose of 30Gy in 10 fractions) was administered with denosumab for bone metastasis. Three months postoperatively, clavicular pain was progressively improved under multidisciplinary treatment. Clavicle is an exceedingly uncommon site with only 2% of metastatic involvement of all type of tumors due to its sparse red marrow and blood supply. Owing to its scarcity, there is no firm guideline of management for clavicular metastasis. Systemic chemotherapy, target therapy, medication, radiation therapy, and surgical intervention all play critical roles in this fields. The most common symptom of bone metastases is pain near the metastatic site. As the structure of the bone is destroyed, the proliferating tumor causes a local inflammatory reaction and stimulates the periosteum, and ended up with uncomfortable pain. Radiation therapy for bone metastases can reduce pain, maintain motor function, and reduce subsequent complications that caused by fractures or nerve compression. After radiotherapy, pain is partially improved in approximately 65–80% of patients; approximately 20% of patients with complete recovered. Usually, the pain would slowly fade within 2–3 weeks instead of instant pain relief, and approximately 40% of the patients experience improvement within 10 days. This case presents with an extremely rare occurrence of clavicular metastasis from primary lung adenocarcinoma foretelling an unfortune short-term median-survival. However, under multidisciplinary management, the pain can be effectively alleviated and quality of life can be significantly improved with a favorable prognosis.

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### ANALYSIS OF CHEMOTHERAPY-INDUCED COGNITIVE IMPAIRMENT AND RESOURCEFULNESS IN PATIENTS WITH BREAST CANCER

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Category: Oncology Nursing Practice

The purpose of the project was to analyze chemotherapy-induced cognitive impairment (CICI) and

resourcefulness in patients with breast cancer, and to investigate the related factors. Sixty-three patients with breast cancer undergoing chemotherapy were investigated using the Mini-mental State Examination (MMSE) and the Chinese Resourcefulness Scale. Their CICI, resourcefulness and corresponding influencing factors were analyzed. Among patients with breast cancer undergoing chemotherapy, the incidence of CICI was 42.86%. The total score of resourcefulness was  $(96.37 \pm 18.18)$ , of which the individual resourcefulness score was  $(55.94 \pm 11.87)$ , and the social resourcefulness score was  $(40.71 \pm 8.99)$ . Education level affected the MMSE score and resourcefulness in patients with breast cancer undergoing chemotherapy, and the differences were statistically significant ( $P < 0.05$ ). MMSE score was positively correlated with total resourcefulness score, individual resourcefulness score and social resourcefulness score in the patients with breast cancer undergoing chemotherapy ( $r = 0.545-0.626$ ), with statistically significant differences (all  $P < 0.01$ ). The nursing staff should pay attention to low-educated patients with breast cancer undergoing chemotherapy and take effective measures to improve their resourcefulness and awareness of cognitive impairment, so as to delay the progression of the disease. By applying the resourcefulness to breast cancer chemotherapy patients, this paper analyzes the correlation between chemotherapy-related cognitive impairment and resourcefulness, and provides a new entry point for clinical nursing to improve cognitive impairment. By improving their resourcefulness, to improve the cognitive level of cognitive impairment, in order to delay the progress of the disease.

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### USING A SHARED GOVERNANCE MODEL TO DEVELOP AN SBAR TOOL TO PERFECTING HANDOFF COMMUNICATION TO ENHANCE PATIENT SAFETY IN THE INFUSION SETTING

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Category: Oncology Nursing Practice

Oncology nurses are respected for their knowledge of medications, teaching, and communication skills, but in the past have lacked a nuanced assessment tool to guide their practice. Gathering patient information



related to chemotherapy treatment and its side effects is vital to patient safety, and nurses must ask appropriate and focused questions to appropriately assess, measure response to treatment, document, and report this information. The purpose of this project was to develop a chemotherapy assessment tool for ambulatory oncology nurses treating patients in the infusion suite with chemotherapy agents. Our shared governance (SG) forum comprised of oncology certified nurse practitioners and Infusion nurses was the venue to discuss ways to improve and standardize the assessment of patients. The SG committee discussed the process of nursing assessment and triaging before contacting providers with their findings, questions or concerns. It was agreed that the Oncology nurses needed support in assessing their patients, collecting information and utilizing critical thinking skills when triaging their patients or contacting the primary treating team with their findings and any questions or concerns. A chemotherapy assessment tool was created for the ambulatory oncology nurses to use as a guide when they are administering chemotherapy or caring for the oncology patient. The phases of development were: a shared governance council of staff with significant oncology experience met to discuss strategies to improve and standardize nursing practice in the infusion suite. The SG council created the tool by identifying areas where there was a need for improvement of assessment skills and critical thinking and elaborated on each area of need by creating probing questions and detailed assessment tools. All the nurses reviewed the final document for usability and provided additional feedback. Once the team finalized and endorsed the tool, we provided education to the nurses and providers on its use. The implementation of the chemotherapy assessment tool in the outpatient infusion center can serve as a way to utilize a SG council to assist new and seasoned oncology nurses in safe and efficient patient assessment and treatment.

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### **NURSING DRIVEN GUIDELINES FOR THE MANAGEMENT AND TREATMENT OF HYPERSENSITIVITY REACTIONS**

**Donna-Marie Lynch, MSN, FNP-BC, Brigham and Women's Hospital, Boston, MA**

**Category: Patient Education and Safety**

Hypersensitivity reactions (HSRs) have increased worldwide to various medications, this includes chemotherapy and monoclonal antibodies (mAbs). These drugs are considered the cornerstone in treating many types of cancers. There is some predictability when the

patient is at more risk of a HSRs based on the medication that is being administered. Taxanes and mAbs reactions often appear during first lifetime exposures, compared to platins that require repeat doses for this to occur. HSRs can develop immediately or delayed, symptoms can be mild only affecting the skin, to more severe life-threatening anaphylaxis, despite premedication that was administered. When HSRs presents, most often, it is the RN that is the "first responder" during these serious events. The purpose was to educate the oncology RN, with an improved knowledge of DHRs, including a new description of reactions by phenotype, endotype, and biomarkers. Differentiating the underlying mechanism of the HSRs is essential in the management of treating the allergic patient. Providing a standardization of guidelines will allow the RN to use the most appropriate "emergency medications" to ensure patient safety and prevent an avoidable death. Training the oncology RN advancement in drug allergy, based on the mechanism of the underlying reaction. This is critical when managing HSRs. Patients that develop chills during their reaction should be given medications that stop inflammatory response like ibuprofen or steroids along with intravenous fluids that target these "cytokine-like" symptoms. Once the HSRs has subsided, it can become more stressful for the RN, which involves restarting the offending medication safely. Most often there is no clear policy for the RN to follow and unfortunately it varies with most providers. Nurses should develop a nursing driven policy for a HSRs on their unit. It should include standard medications that will be used if a HSRs develops. These medications will be based on the underlying mechanism of the HSRs and should be administered immediately even if the provider is not present. This policy should include patients that can have their medication safely resumed and include standardized infusion rate when drug is restarted. Drug desensitization should be an option for patients that are unable to restart their medication. This reintroduction allows the patient to remain on their first line therapy safely.

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### **TWO-PERSON CHEMOTHERAPY VERIFICATION**

**Carmela Lynch, DBA, MA, BSN, ACCN, Sinai Hospital, Baltimore, MD; Maureen Klein, BSN, OCN®, Mercy Hospital Center, Baltimore, MD**

**Category: Oncology Nursing Practice**

The standards developed by the American Society of Clinical Oncology (ASCO) and the Oncology Nurses Society (ONS) for safe administration of chemotherapy

to adult patients, were refined and updated in 2016 when the standard for two-person verification of chemotherapy preparation and administration processes was introduced to minimize the risk of errors in ordering, preparation, and administration including both oral and parenteral therapy. The objectives of this project were to determine the nurses' understanding of this new standard, to educate the nurses in the processes involved in the application of two-person verification of chemotherapy administration, and to monitor compliance with the process once established. Current literature supporting evidence-based protocols for two-person verification of chemotherapy administration and minimalization of risk of adverse events to patients was reviewed for level of nursing care provided per therapy type, time required to perform the verification process, availability of the second nurse to perform the verification, and level of compliance. Nurses were initially educated in the revised standard as a group, then on a one to one personal sessions with each nurse. Once completed, nurse focus groups were established to provide feedback, evaluate change in process needed and determine incorporation into documentation in the electronic medical record for each encounter. Once the process was defined and implemented, compliance was measured through 50% direct observation and 50% chart audit of all active patients each month for a 6 month period for accurate documentation in the EMR. Target for compliance was set at 100%. At the conclusion of the project, the target of 100% compliance was met by all nursing staff and continues to be monitored monthly as a Performance Improvement initiative. Initially, all nurses believed that there was no need for a second person to verify chemotherapy prior to administration but baseline data analysis resulted in identifying multiple areas of concern for patient safety. The completed project allowed staff to realize that patient safety must be the priority in administering chemotherapy at all levels. Development of the electronic tool for documentation of the process proved to be a breakthrough for nursing and patient safety measures and could be used by all organizations utilizing electronic records.

## 279 NAVIGATING LGBTQ EDUCATIONAL RESOURCES

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Category: Professional Development

The journey of cancer continues to be stressful and challenging for oncology patients especially in the young adult population. Even though many programs and institutions are providing health care providers with

cultural sensitivity activities, LGBTQ biases continue to be present. Through navigating the system, the nurses found paucity in resources, which required them to look outside their institution. There should be required annual training on Inclusion and Diversity. Medical professionals who are uneducated or unaware of how their demeanor affects their LGBTQ patients, contribute to the reasons LGBTQ patients delay seeking care. Oncology nurses recently cared for a young gay individual diagnosed with HIV and Leukemia. There is such a stigma associated with this diagnosis which brings a higher risk for social isolation and need for advocacy. During the patient assessment, a limited support system was apparent. The nurses felt ill-equipped to handle the situation. Nurses began looking for resources regarding "Care of the LGBTQ community". First, with their employer, a large academic medical center, but paucity of educational resources on this topic was encountered. Better results were achieved when they reached out to their Office of Diversity, The Oncology Nursing Society, The National Comprehensive Cancer Network, The National LGBTQ Cancer Network and The Healthcare Equity Index. Educational resources need to become more available. The goal is to convince developers within their organization to implement annual education training for medical staff. Surveys/Feedback from LGBTQ patients, family members & staff. This is still a work in progress in Inclusion & Diversity. LGBTQ patients have a special need to be treated like all non LGBTQ people have been treated. Many LGBT members do not seek medical attention because of fear of discrimination, history of previous negative experiences, lack of insurance, financial or legal resources, shame or Immigration status. In an attempt to increase preventative care, early detection and treatment, all people need to feel safe and have a sense of security that their medical team will provide an accepting and understanding environment for their care. As educated Oncology nurses, we can gear our thinking towards inclusion, not segregation. We can instill an environment where patients are comfortable receiving their care here.

## 280 TECHNOLOGICAL ADVANCEMENTS IN PROSTATE CANCER BRACHY THERAPY TREATMENT: EXPANDING THE ROLE OF THE RADIATION ONCOLOGY NURSE

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Category: Treatment Modalities

Technological advancements and high-risk procedures in radiation oncology produce challenges for

the oncology nurse in expanding their role from that of clinic nurse to procedure nurse. The objectives were to demonstrate improved patient outcomes with radiation oncology nurse participation in high dose rate (HDR) prostate brachytherapy treatments by decreasing patient handoffs and customizing discharge instructions. Clinical data were gathered from post-HDR prostate brachytherapy patient phone calls from two six-month intervals. First six-month interval included care by the operating room nurse and recovery room nurse. The second six-month interval included care by the radiation oncology nurse participating in both procedure and recovery. Post-discharge patient phone calls revealed issues among 34% of patients discharged by non-radiation oncology staff. Discharge instructions prepared and given by the radiation oncology nurse revealed issues among only 6% of patients.

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### **DESIGN, IMPLEMENTATION, AND EVALUATION OF A COMPETENCY-BASED ONCOLOGY NURSE NAVIGATOR PILOT IN A MULTIDISCIPLINARY HEAD AND NECK (H&N) CLINIC**

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Category: Oncology Nursing Practice

The translation of evidence into practice contributes to improved patient outcomes. Limited evidence-based resources are available to guide the development of role-specific competencies Oncology Nurse Navigators (ONNs). Failure to delineate the role and scope of the ONN results in variation of care, care-team confusion, and an inability to measure the value of the ONN role and outcomes related to patients receiving navigation. The purpose was to study the impact of implementing a pilot ONN role and Evidence-Based Practice (EBP) competencies in a multidisciplinary Head and Neck (H&N) Clinic and further inform the implementation of an EBP ONN program at a National Cancer Institute (NCI)-Designated Comprehensive Cancer Center. Following the completion of ONN competency training, an experienced oncology nurse was assigned to practice as an ONN within a multidisciplinary H&N care clinic. The

ONN collaborated with all members of the interdisciplinary care team (ICT), the Clinical Trials (CT) office and engaged in Research and Tumor Board conferences. The ONN conducted patient-centered interventions that prepared the patient and family for the new patient visit (NPV), consulted with the patient during the NPV, and maintained a relationship with the patient while conducting check-ins at milestone visits. The ONN directly advanced CT enrollment and interfaced with the ICT across acute care and transitions. The H&N pilot was implemented August of 2018. Primary outcome measures of interest were appointment and treatment plan compliance and evaluation of CT eligibility and subsequent enrollment. Data were reviewed monthly and compared to the same time frame from the previous calendar year for the H&N population. Post intervention, the 1st quarter measured a reduction in the rate of “No Show” H&N appointments by nearly 50%. Additionally, 100% of all newly referred patients eligible for CTs received education about CTs during the ONN intake assessment, leading to a 24.5% increase in H&N CT enrollment and 26.3% increase in H&N CT accrual. Utilizing EBP competencies for training of ONNs in an academic healthcare system contributed to the development of knowledge and skills that deliver measurable and improved patient outcomes. A competent ONN is able to provide personalized patient support and proactively ensure that patients are empowered to take ownership of their health and engage in their care.

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### **QUALITY ONCOLOGY PRACTICE INITIATIVE (QOPI) RE-CERTIFICATION CHALLENGE**

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Category: Oncology Nursing Practice

Advent Health physician practices have been certified by Quality Oncology Practice Initiative (QOPI) for the past several years. Since most of the chemotherapy treatments have been moved to the outpatient setting QOPI focused on our outpatient setting along with the physician practice. Upon the recertification (QOPI) for Advent Health in Orlando Florida it was noted that: Before each chemotherapy administration, at least two practitioners approved by the health care setting to administer or prepare chemotherapy verify and document the accuracy of the following elements. Certification program standards states documentation of the appearance and physical integrity of the medication is required. QOPI indicated that

they felt is was an added layer of patient safety. On verifying with the 2019 Chemotherapy and Immunotherapy guidelines: Only indicates to check the appearance and physical integrity of the medication and container but does not state that documentation is required in the process (p. 206). After review/conversations we believe that the added safety benefit would elevate our safety practices. For both the nursing staff and our patients. Our organization did not have a current process for changing the way of documentation in our present computer system. (Which could be an established drop-down box for a second nurse to verify the appearance and physical integrity of the medication). As we in the process of upgrading our overall computer documentation systems this could not e a simple added. Since we have rebranded from Florida Hospital to Advent Heath which includes 47 hospital in 9 states, this change in process would have to be a system wide change. Along with education that would have to occur throughout the multi-states Oncology divisions. At this time, we were then tasked to find a process for compliance and safety. A mandatory requirement was established that all nursing in the outpatient setting must document in the current system under additional notes. Education was completed for the all outpatient oncology areas. Documentation much included the following: (a) Appearance and physical integrity of the drug (clear, red in color) This would include the second nurse verifier. (b) We are currently working with a team from AIT to incorporate a process in the new documentation. Drop down box where the nursing can click (instead of free typing).

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### INCREASING NURSE SATISFACTION IN THE CENTRAL LINE BUNDLE

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Category: Oncology Nursing Practice

Oncology patients are frequently treated with medications that require a central venous catheter. Because these treatments also compromise their immune system, diligent central line care is vital in this population. The inpatient oncology unit at an academic medical center saw a dramatic increase in Central Line Associated Blood Stream Infections (CLABSI). Through bedside audits it was discovered that instead of using a sterile cap when disconnecting intermittent

IV infusions, nurses were either “looping” the tubing and connecting the tip to an infusion port on the same tubing, or using the caps of saline flushes that did not fit properly. Both processes dangerously expose the tubing to contaminants. Based on feedback from staff, the oncology unit implemented a new sterile cap that would increase nurse satisfaction and allow for increased adherence to the institution’s central line bundle. A pre-survey was sent to staff to determine barriers to using the sterile caps provided at the institution. Results showed that 50% of nurses “looped” the tubing, and their main barrier was not having the caps available in the room at time of need. Based on these results, in July 2019 a new sterile cap was trialed for 6 weeks on the oncology unit. These caps not only connect properly but are also able to be stored in patient’s rooms on IV poles. After the 6-week trial period, a post-survey was sent to staff. The results showed that 100% of nurses no longer “loop” the tubing. Furthermore, 70% of nurses responded “very satisfied” and 25% responded “somewhat satisfied” in regards to the new caps. Most importantly, since the implementation of this trial, the unit’s CLABSI rate has decreased with none reported in the last 2 months. Results showed that both nurse satisfaction and nurse compliance increased with the new caps. Nurse feedback in the survey endorsed ease of use, convenience, and satisfaction. 95% of respondents wanted to see this implemented in the bundle. Having sterile caps that are stored in patient’s rooms significantly improved adherence to the central line bundle. This project allowed nurses to honestly evaluate their compliance to the bundle and also educated them on the importance of using sterile caps instead of their previous practices.

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### THE EVOLUTION OF A CLINICAL ADVANCEMENT PROGRAM FOR ONCOLOGY NURSES

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Category: Professional Development

Quality patient care, nursing retention and professional role satisfaction are challenging in our chaotic healthcare environment. A clinical advancement program can provide an infrastructure to support and enhance professional practice, role satisfaction, clinical competence, compassionate patient care, and nurse retention. Our unique and evolving clinical advancement program promotes professional nursing practice by recognizing and rewarding experienced

nurses who demonstrate expertise in the use of the organization's Professional Practice Model (PPM) to promote excellence in clinical care, education, evidence-based practice, and leadership. This discussion will describe the evolution of a program that grew exponentially while focusing on the meaningful nurse-patient relationship. A Clinical Advancement Committee comprised of staff nurses and nursing leaders developed and maintain an advancement program based on Benner's stages of clinical competency. The program's core components promote professional development requiring a BSN, nursing certification, and professional organizational involvement. An exemplar of the nurse-patient relationship provides an opportunity for the nurse to reflect and share his/her practice, providing meaning and satisfaction of their professional role. In addition, the nurse completes and documents specific activities related to quality patient care, professional role development, evidence-based practice, and community leadership and outreach. Promoted nurses mentor colleagues who want to apply for this voluntary promotion. The applications are peer-reviewed for advancement eligibility. In the last 2 years, the clinical advancement program has increased by 30 percent, totaling 179 nurses. The retention rate of advanced nurses is 93.3% compared to 90.5% for the rest of the organization. 100% belong to a professional nursing organization and 87% have a nursing certification. The exemplars are used as sources of evidence for Magnet as well as teaching tools for novice nurses. Advanced nurses are highly engaged in practice and contributed 554 activities including mentoring, evidence-based practice projects, and peer education in the last year. The success of the clinical advancement program has provided the organization with expert, highly engaged oncology nurses. Retaining experienced nurses at the bedside is key to quality patient care. The Advancement Committee recently proposed an additional level of advancement for the master's prepared nurse who wants to remain at the bedside. This program has provided a mentored professional development journey that enhances the nurse, patient care and organizational outcomes.

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### **SCREENING FOR SUBSTANCE USE AND MISUSE AT A COMPREHENSIVE CANCER HOSPITAL**

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[Category: Oncology Nursing Practice](#)

The opioid epidemic has had devastating effects on families and communities. Unfortunately, oncology is not excluded. Mounting evidence suggests patients diagnosed with cancer may be at increased risk for opioid misuse and diversion. Substance use disorders (SUD) involving both prescription medications and/or illegal substances may significantly compromise the ability of healthcare professionals to deliver high quality cancer care. The purpose of this project was to assess the feasibility of screening for substance use in an ambulatory oncology clinic. This was piloted over six months (September 2018–February 2019) in the lymphoma clinics at a large midwestern cancer hospital. New patients received a paper copy of the Tobacco, Alcohol, Prescription medication, and other Substance use tool (TAPS). Patients identified with current or past history of substance use or misuse were offered harm reduction education and evaluation by a chemical dependency counselor. Two hundred sixty-four new patients presented to the ambulatory lymphoma clinics during the screening pilot; of these, 33.7% (n = 89) completed the TAPS screening tool. Patients were more likely to be male (n = 52, 58.4%) and Caucasian (n = 76, 85.3%). Seventy-three patients (82%) reported never using tobacco in the past year, with sixteen patients (18%) reporting current use. Twenty male patients (38.4%) disclosed consuming five or more alcoholic drinks in the past year, with one male patient (0.02%) admitting this daily. Fifteen female patients (40.5%) acknowledged consuming four or more alcoholic drinks in the past year, although none reported this as daily. Six patients divulged illegal drug use (0.07%), with one patient confessing daily use. Six patients (0.07%) revealed misuse of prescription medication in the past year, with two of these patients conceding weekly misuse. Seven Harm Reduction referrals were placed. Screening for substance use is feasible in ambulatory oncology clinics, resulting in improved recognition and promotes universal and unbiased management, as well as opportunities for patient and family education, and the implementation of harm reduction strategies. Addressing results is key to decrease negative

consequences and improve treatment adherence, as well as reduce complications, resulting in more optimal outcomes. Future directions involve innovative methods to deliver addiction specific knowledge to oncology health care providers, and should focus on discussing screening results as well as providing recommendations to patients and caregivers.

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### HEALTH LITERACY OF THE CANCER PATIENT

Cheri Mease, RN, BSN, OCN®, Lehigh Valley Health Network, Bethlehem, PA

Category: Patient Education and Safety

Definition of Health Literacy: The degree to which an individual has the capacity to obtain, communicate, process, and understand basic health information and services to make appropriate healthcare decisions. Statistics: Only 12% of American adults have proficient health literacy. Adults over the age of 75 have low health literacy. The proportion of adults with basic or below basic health literacy ranges from 28% of white adults to 65% of Hispanic adults. Limited health literacy affects adults in all racial and ethnic groups. Patients at all literacy levels have difficulty understanding multi-step instructions written at the high school level. Joint Commission recommends that patient education be developed at a third grade level. Healthcare providers are responsible for ensuring that patients can appropriately process and understand education and patient instructions. Having an understanding of what is expected once the patient leaves the hospital allows patients to better care for themselves at home. An oncology nurse at Lehigh Valley Health Network's (LVHN) Cancer Institute was determine to lower the literacy level of antiemetic patient instruction sheets. The purpose of the project was to raise staff awareness about health literacy and to improve patients' understanding of the instructions, thereby assisting with patient adherence in taking antiemetics as prescribed. A literature search was completed. Examined current antiemetic patient instruction sheets using the SMOG readability formula. Reviewed LVHN's existing antiemetic patient instruction sheets. Revised existing antiemetic patient instruction sheets into plain language and reduced the literacy level from a 9th grade reading level to a 5th grade reading level. The revised antiemetic patient instructions have been well received by both nurses and patients and have replaced the original instructions in the electronic medical record (EMR). Future plans include completing a retrospective patient survey comparing the

original antiemetic patient instruction sheets with the revised ones. Based on patient feedback, further revisions to the instruction sheets can then be made. Research shows that 65% of identified adverse events have been related to communication failures. In the future, LVHN Cancer Institute would like to implement a follow up RN phone call to patients within 24-48 hours of chemotherapy to ensure adherence to the education sheets provided.

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### ENGAGING NURSING STAFF IN A CULTURE OF SAFETY: IMPROVING INPATIENT IMPLANTED PORT COMPETENCY IN A COMMUNITY HOSPITAL SETTING

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Category: Oncology Nursing Practice

With the addition of an outpatient chemotherapy infusion unit (OCIU) in a community-based facility, inpatient oncology chemotherapy infusions increased by 67% over the last 3 years. These patients frequently have implanted ports placed for treatment infusions. With increased inpatient chemotherapy administrations, OICU nurses have been providing chemotherapy administration competency check-offs for the inpatient nursing staff and noticed a deficiency in proper port accessing skills. Being a sterile procedure, it is imperative nurses are properly trained and feel comfortable accessing ports as oncology patients are at high risk for infection. Our goal is to increase inpatient nursing knowledge and competency for port accessing, improve nurse comfort level, and maintain consistent port competency despite high nurse turnover. Inpatient nursing staff completed a survey designed to understand current knowledge and practices of port access. Results indicated a lack of confidence in port skills with 63% reporting they are not very comfortable accessing a port. Additionally, 57% indicated a lack of adherence to practice guidelines (e.g. cleansing skin prior to accessing the port for incorrect amounts of time). Working with nursing leadership team, staff education initiatives were developed providing hands-on annual training rather than using a paper questionnaire. This training will occur in October 2019, and includes both demonstration and verbalization of port accessing technique. As inpatient staff currently shadow in the OICU

bi-annually reviewing chemotherapy administration, we plan to include opportunities for accessing a port to increase hands-on exposure, comfort level, and demonstration of proper technique. To date, approximately 50% of nurses have shadowed. It is expected 100% of staff will complete this training by December 2019. Data collection is ongoing, and a post-survey will be sent out in January 2020, with final data available February 2020. We anticipate 100% of staff will attend the October training, and our goal is to have 100% of staff checked off to independently access and care for ports. The collaboration between OICU and inpatient staff has fostered teamwork as we improve patient care practices. We expect this change to result in staff reporting improvement in comfortability level, and verbalize and demonstrate proper technique as per policy. Future goals include expanding this training to other units, as our current work has resulted in other units requesting this training with their team also.

### 306

#### **REDUCING THE EFFECTS OF CHEMOTHERAPY INDUCED NAUSEA THROUGH THE USE OF AROMATHERAPY**

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*Category: Symptom Management and Palliative Care*

Nausea is one of the most common side effects experienced by patients receiving chemotherapy. Despite the use of anti-emetics, chemotherapy induced nausea and vomiting (CINV) is reported to occur in 70%–80% of patients receiving chemotherapy. It is also one of the most distressing side effects of cancer treatment. In addition to the discomfort of vomiting, anorexia, weight loss, and fluid-electrolyte imbalances, CINV can ultimately affect the individual's quality of life and psychological well-being. The treatment options for CINV have seen recent improvements provided by certain serotonin receptor antagonists and neurokinin-1 receptor antagonists. CINV continues even with the addition of these drugs and other anti-emetics. The use of many anti-emetics is limited due to the multitude of side effects, such as headache and constipation to name a few. Patients often seek non-pharmacologic interventions because their CINV is not adequately controlled by medications alone. The simple inhalation of some easily accessible and inexpensive essential oils, such as, peppermint and ginger, has been reported to reduce the effects of CINV. Inhalation is achieved by use of an aroma stick, a personal pocket-sized diffuser. The benefit of these essential oils through inhalation comes

with little to no reports of ill side effects, and when reported, these were not significant enough to cause any patient harm. The use of aroma therapy by individuals receiving chemotherapy may reduce nausea and vomiting and improve the quality of life for many cancer patients. Nurses working in the oncology setting often see this suffering and feel a deep need to change it. This has provided a passionate motivation behind this investigation into the use of essential oils as a complementary approach for treating CINV.

### 309

#### **EVALUATION OF ONCOLOGY STAFF EXPOSURE KNOWLEDGE AND SELF-REPORTED USE OF HAZARDOUS DRUG SAFE-HANDLING PRECAUTIONS**

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*Category: Oncology Nursing Practice*

The mere handling of chemotherapy can expose oncology staff to hazardous drugs and cause acute symptoms such as nausea, vomiting, headaches, dizziness, hair loss, and liver damage. Long-term effects of exposure include chromosomal defects and abnormal reproductive outcomes. Oncology nurses routinely administer hazardous drugs such as chemotherapy and oncology nursing assistants routinely handle body fluids contaminated with hazardous drugs, leaving themselves vulnerable to exposure. Studies show that although nurses are aware of the risk of harm when exposed to hazardous drugs, use of safe-handling precautions is low. With the advent of U.S. Pharmacopeial Convention General Chapter 800 (USP 800) and its enforcement by each state's board of pharmacy, health care organizations in the United States will be required to have a program in place defining how hazardous drugs are to be handled from their entry into the facility to disposal. Furthermore, organizations must provide appropriate personal protective equipment (PPE) as well as education for staff who handle hazardous drugs. The purpose of this project is to evaluate exposure knowledge and self-reported use of precautions among inpatient hospital-based oncology nursing staff members before and after a standardized educational offering on Hazardous Drug Safe-Handling Precautions. Oncology Nurses and Nursing Assistants working in an inpatient community hospital setting will complete the Hazardous Drug Handling Questionnaire (HDHQ) to measure use of hazardous drug safe-handling precautions. The tool consists of 65 questions that measure

seven predictor variable: exposure knowledge, self-efficacy, perceived risk, barriers, interpersonal influences, conflict of interest and workplace safety climate. Completion of the questionnaire will reflect voluntary consent to participate. Next, standardized education including correct use of Personal Protective Equipment (PPE) and USP 800 guidelines will be provided to oncology nursing staff via huddles, staff meetings, and other face-to-face methods. Two weeks after the education is delivered, Oncology Nurses and Nursing Assistants again complete the Hazardous Drug Handling Questionnaire and are presented with scenarios and scored on their ability to identify appropriate PPE for common clinical situations. Results not yet available. The project will be completed with results reported and conclusions drawn from the findings at the time of presentation.

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### **EXPANDING THE SCOPE OF NURSING PRACTICE ON A GROWING HEMATOLOGY/ONCOLOGY UNIT TO APPROPRIATELY CARE FOR TELEMETRY PATIENTS IN A COMMUNITY HOSPITAL SETTING**

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Category: Oncology Nursing Practice

A community hospital with a growing oncology unit composed of liquid and solid tumor patients was experiencing increasing patient acuity. Historically, oncology patients requiring cardiac monitoring were routinely transferred to the general intermediate care unit. This had implications for the delivery of specialized care, as it relates to the administration and management of chemotherapy; it also impacted continuity of care for the malignant hematology patients, who had an extended length of stay. The purpose of this initiative is to provide continuity of care for malignant hematology patients by expanding the scope of nursing practice. Reviewed current cardiac monitoring policies with the input of a multidisciplinary group and drafted an expanded scope of practice for the nurses caring for this patient

population. Designed and delivered an educational program skills based checklist to validate competency in order care for monitored patients. Implemented 12 cardiac monitoring beds for hematology oncology patients. The interventions decreased the number of patients transferred off the unit and improved continuity of care. The initiative expanded the nurse's scope of practice to allow them to care for monitored patients. As large health systems expand, community hospitals are increasingly faced with higher acuity patients and subsequent challenges; it is imperative for oncology nurses to be prepared to manage and provide safe and quality care. There is growing opportunity for community oncology nurses to expand their scope of practice and be empowered with the appropriate skills and education in order to succeed. There is also opportunity for nurse leaders and educators to work collaboratively both within the community hospital setting and across the broader health system; in order to tap into innovative and evidence based models of care.

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### **OUTPATIENT CAR-T PROGRAM IN A COMPREHENSIVE CANCER CENTER**

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Category: Coordination of Care

In 2017, two new chimeric antigen receptor therapies (CAR-T) were approved by the Food and Drug Administration (FDA) for treatment of acute lymphoblastic leukemia (ALL) and some advanced lymphomas. The standard practice is to admit patient for an inpatient stay for CAR-T therapy. Vanderbilt-Ingram Cancer Center (VICC) Stem Cell Transplant program set a goal to make an overall better patient experience by allowing the patients to be away from the facility/hospital at night and maintain some semblance of normalcy during an otherwise daunting process. In the fall of 2018, with the guidance of Drs. Olalekan Oluwole and Michael Byrne, the Outpatient CAR-T Committee was formed comprised of key stakeholders: providers, APP, pharmacy, nurses, schedulers, IT, and coordinators. The objectives of this committee included: developing a process to safely administer CAR-T therapy in the existing Outpatient Transfusion Unit (OUT), leveraging utilization of Telehealth visits for virtual assessment overnight, and delivering novel therapies in the most cost-effective way. The Outpatient CAR-T patient flow process (Day 0–Day 14) is as follows: (a) Patient Selection, (b) Patient and caregiver evaluation, (c) Patient and caregiver



training for home vital sign monitoring and telehealth consults, (d) Clinical appointments scheduled, (e) CAR-T infusion, (f) Patient monitoring, (g) daily lab visit, (h) daily MD/NP assessment, (i) NP telehealth consultation at 10pm, and (j) 6am patient report out to NP. The first outpatient CAR-T therapy was administered 1/14/2019, to date 5 treatments have been completed. The initial successes of the pilot include: patient satisfaction, seamless transition to home care, and minimal patient admissions needed due to the telehealth visit. Opportunities recognized include: outline communication process inpatient to outpatient are paramount, dry run of all IT equipment to ensure connectivity and caregiver proficiency, caregiver selection is vital, and frequent calibration of equipment is required. Outpatient delivery of CAR-T therapy is a viable option for patients.

### 317 **IMMUNOTHERAPY BLUE ALERT WALLET CARD: RAISING AWARENESS OF IMMUNE-RELATED ADVERSE EVENTS FOR PATIENTS AND NON-ONCOLOGY PROVIDERS**

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Category: Patient Education and Safety

Immunotherapy has revolutionized how oncology patients are being treated. It has given hope to patients that they can lead a long-term, cancer-free remission with increased survival rates. However, there are still associated risks that occur with immunotherapy. The literature supports educating patients and their non-oncology providers of these risks. Nurses at infusion centers are the primary educators of patients and families. The “Blue Immunotherapy Alert Card” (BIAC) was developed to educate patients about potential life-threatening immune-related adverse events (AEs) that can occur even after treatment has been completed. According to the literature, wallet cards detailing symptoms to monitor, and how to notify the cancer team may be a useful tool for empowering patients to recognize and manage potential AEs. This card also alerts non-oncology physicians on how to promptly and effectively treat these patients. Patients are instructed to carry their BIA card with them at all times. Educating patients about AEs may expedite patient evaluation in the ED and assures the appropriate treatments are administered, leading to positive patient outcomes, increased patient satisfaction, and improved quality of life. This study will provide the patient with the knowledge of

symptom’s requiring immediate medical attention as addressed. Patients will have an individual education session on symptoms requiring immediate medical attention. A BIA card will be given to reinforce the education and can be used to instruct non-oncology providers of the patient’s treatment and potential side effects. The patient will fill out a post educational survey, and a Likert scale will be used to evaluate the effectiveness of educational teaching on the BIA. This project supports the importance of easily accessible education for patients receiving immunotherapy. Interventions such as education with a post survey can provide reassurance that the patient has the knowledge necessary to recognize the signs and symptoms of immune-related adverse events and seek medical attention. A handy wallet-sized card allows easy access to information for the patient and ED staff. The medical consequences of delayed treatment for patients include risk for life-threatening events, lengthy hospitalizations, economic issues, and treatment delays. Results pending

### 319 **EFFICACY OF HEPARIN VS SALINE IN MAINTAINING CENTRAL LINE PATENCY**

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Category: Oncology Nursing Practice

Central lines play an important role in patient’s overall treatment. When these lines are not properly maintained it is difficult for patients to receive treatment they need. There was an increase in occlusions of central lines leading to a delay in the administration of chemotherapy and blood products at our large teaching hospital in south central Pennsylvania. When patients were admitted to our 32-bed inpatient oncology unit, there was inconsistent documentation of the type of central line that was in place. Our current practice is to flush non-Groshong central lines with heparin and Groshong central lines with saline. There was no hospital standard in place to determine when lines should be flushed with heparin versus normal saline. The purpose for our research was to decrease the occlusions of central lines and standardize nursing care. By using the John Hopkins Nursing Evidence-Based Practice (EBP) we developed an EBP question to critically appraise the evidence. Our EBP question was “Is flushing central lines with heparin the most effective way to prevent central line occlusions in adult hospitalized patients?” We conducted a literature review using Ovid MEDLINE and PubMed databases with the keywords central

lines, occlusions, heparin and flushing between 2014 and 2019. Our search returned 22 articles however only five answered the EBP question and were of good quality. We reviewed one systematic review of randomized control trials (RCT), two RCT, one quasi-experimental and one literature review. The studies stated the heparin is not effective at preventing central line occlusions, but rather using the technique of pulsatile flushing with normal saline is effective at preventing occlusions. We presented the following practice change recommendations to the hospital wide central line committee for review: begin flushing all central lines with normal saline only, discontinuing the use of flushing lines with heparin, and standardizing flushing technique using the pulsatile method. We have begun using these recommendations on our floor by incorporating the pulsatile flushing technique into our unit-based competencies. Our plan is to use these recommendations hospital wide and educate nurses accordingly.

### 321

#### **DENTAL EROSION: AN ADVERSE EFFECT OF GOOD SELF-CARE**

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Category: Oncology Nursing Practice

At the end of this presentation, attendees will be able to guide cancer patients toward effective oral self-care practices and away from harmful self-care practices to preserve dentition. A gap in oncology nursing literature exists related to dental erosion that can occur after frequent cancer treatment-induced vomiting. Evidence about dental erosion exists mainly in literature for dentists and for health professionals treating patients with eating disorders, hyperemesis gravidarum, gastro-esophageal reflux disease, and nutritional problems. This literature analysis provide background information before a foreground question can be developed. The purpose of this project was to review key points about dental erosion related to treatment-induced emesis, reduced salivation, and timing of self-care measures after vomiting, as well as counter-intuitive teaching points that nurses can include when teaching cancer patients about oral hygiene self-care. The best evidence supporting current standards for managing good oral hygiene for cancer patients with treatment-induced vomiting emphasizes saline rinses. However, the current standard for teaching good oral hygiene does not

clearly warn against patients' own additional self-care efforts. The oncology nursing literature revealed a gap related to patient teaching. Dental erosion is a complex clinical condition with multiple pre-disposing factors, many of which are not well-known by the lay public or by many non-dental health professionals. Patients' own oral hygiene self-care responses can inadvertently exacerbate dental erosion, tooth sensitivity, and tooth breakage. If dental erosion is left unchecked, certain cancer patients who survive their cancer illness phase can eventually suffer long-term mandibular and maxillary problems. Given this exposition of background information about dental erosion, new aspects of patient teaching to prevent dental erosion related to patients self-care and its consequences will be presented.

### 322

#### **FECAL MICROBIOTA TRANSPLANTATION: AN INNOVATIVE APPROACH TO BATTLING CLOSTRIDIUM DIFFICILE**

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Category: Treatment Modalities

Clostridium Difficile Infection (CDI) is an urgent public health challenge. It is the most common cause of nosocomial diarrhea affecting 29,000 in the United States yearly resulting in significant morbidity and mortality. C-difficile is a ubiquitous gram-positive spore-forming bacterium acquired via fecal-oral transmission. It resides in the gut microbial flora, usually in a non-pathogenic state. In a healthy gut, epithelial cells produce antimicrobial proteins that help prevent passage of the bacteria into the host. Microbiota is the collection of microorganisms, the beneficial gut bacteria. In immunocompromised cancer patients, use of prolonged antibiotics, chemotherapy, and proton pump inhibitors increase risk of infection. These along with advanced age and prolonged hospitalizations disrupt the balance of the microbiota destroying beneficial bacteria that enhance immune function. Diagnosis of CDI is challenging but imperative for prompt treatment preventing dehydration and further gut mucosal damage. Oral metronidazole, vancomycin and fidaxomicin are the standard treatments however recurrent or refractory CDI occurs in >25% of patients. This has led to an innovative C-difficile treatment with fecal microbiota transplantation (FMT). Stool from

healthy donors is screened for a variety of infections and instilled (allogeneic transplantation) into the GI tract of the immunocompetent patient. The stool re-populates the gut flora and helps restore digestive and immune function. For patients undergoing stem-cell transplantation, where antibiotic-induced shifts in fecal microbiota and resulting CDI is robust, research using the patient's stool collected pre-transplant is underway. Exciting results reveal autologous FMT leads to recovery of original gut microbiota within days safely reversing the effects of the broad-spectrum antibiotic treatments. Nurses play a key role in the education of patients, families, and staff about CDI prevention and available treatments. C-difficile spores can survive on environmental surfaces for months challenging eradication and promoting nosocomial transfer. CDI is resistant to high temperatures and alcohol-based hand sanitizers, therefore the use of bleach on surfaces and vigorous handwashing with soap and water is mandatory. Nurses must advocate for antibiotic stewardship to decrease unnecessary antibiotic use. Probiotic use for CDI prevention in the immune compromised patient is controversial and presently not recommended. It is imperative to maintain knowledge of treatments and innovative research in FMT for cancer patients with resistance to standard treatments for CDI.

### 323 ROLE STANDARDIZATION AND IMPACT ON PATIENT FLOW AND EMPLOYEE SATISFACTION

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Category: Coordination of Care

In the past 18 months, the infusion center at a large academic hospital experienced increasing volume (over 14%) and patient complexity. This resulted in delays in throughput, creating a challenging environment for both patients and nurses. Counter measures needed to be identified and enacted to enhance patient and staff experience. Priority was given to formalization and standardization of the charge nurse role and creating a triage nurse role. Initial steps included identifying key components of the charge roles and standardizing their execution. A resource binder was created and additional charge nurses were on boarded. Physical proximity to a scheduler was instituted to refocus the charge nurse on patient prioritization and eliminate the focus on the administrative components. The charge nurse serves as the primary point of contact for the infusion team and

liaison to clinical team, functioning as clinical expert to the nurses as well as the multidisciplinary team. The team pinpointed a desire to efficiently utilize patient time in the infusion center. The triage nurse identifies and escalates barriers to the patient's passage such as incomplete or conflicting orders and abnormal diagnostic testing. The triage nurse provides oversight to the patients in the waiting room, determining patients requiring more urgent care. The triage nurse and the charge nurse work closely to understand patient and staff needs as they change throughout the course of the day. The team found that these two roles help assure patients have complete and actionable orders when they reach the infusion chair. This allows the nurse to focus on the patient and their care. Over 88% of staff are satisfied or very satisfied with the role of the charge nurse. Patient feedback is positive. "Outstanding experience with every visit and attention to every detail." Approximate infusion wait times decreased from an average of 1–3 hours to 15 minutes. This collaborative effort minimizes duplication of work and optimizes patient flow. The ability to directly impact patient flow has enhanced patient satisfaction and improved the work environment for the infusion nurses.

### 328 TEAM NURSING: CONSIDERING A NEW NURSING MODEL

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Category: Coordination of Care

In a Gastrointestinal (GI) Medical Oncology academic clinical practice, four physicians have been recently added to accommodate increasing patient volumes. To balance the volume of work, varying patient panel size/acuity, and varying team dynamics, level-loading of nursing assignments is required. Nurses supporting large, high acuity patient panels experienced barriers responding to internal and external requests for patient care activity which resulted in increased overtime, higher burdens of responsibility, and unevenly distributed workloads. A pilot of a team nursing model combining the care teams for two patient panels was initiated. Pre initiation of the pilot, nurses identified team norms, expectations in care functionality, assigned responsibility, and service expectations. Organizational tools to assist in communication (task list,

email standards, team meeting agendas) were created. The Proposal was refined with the entire team's input and consensus agreement finalized the implementation plan. The level loading of nursing work proved effective in maximizing efficiency in the larger patient panel teams. Nurses reported faster responses addressing patients' needs and completion of work. Newly adopted organization techniques improved workflow and updated care team meeting agendas prioritized nursing issues. No significant change in over-time was appreciated. Increased communication between teams was essential to avoid the potential for risk of duplication. Effectiveness of the combined team pilot mandated focused attention on efforts of coordination and communication. Distinct and different personal work styles meant new relationships and trust had to be cultivated across all members of the team. The pilot facilitated a review and refresh of GI team dynamics between the new combined team members as well as within the larger clinical care service. An evaluation was completed to assess nursing and team effectiveness pre and post pilot. (September 2019 results pending). Outcomes must be evaluated and results balanced in view of the needs of the greater GI team to select the most appropriate nursing model. Within the organization similar team approaches have been piloted with various degrees of success. Paramount to the success of the model is the working relationship between all members of the team, especially the oncology nurses leading the action. Nursing care and staffing models must evolve to effectively continue best practices provision of care to our patients in the large academic medical GI service.

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#### **A NURSE-LED INTERVENTION USING A PATIENT EDUCATION BINDER FOR PATIENTS WITH GASTROINTESTINAL CANCER**

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Category: Patient Education and Safety

Most patients with gastrointestinal cancer have a high symptom burden related to both the disease process and side effects of treatment. Research has established the essential components required to prepare patients for chemotherapy. Oncology nurses in the

clinic are challenged to coordinate an evidence-based approach that provides effective education, symptom management, psychosocial support and follow up during a stressful phase of the patient's care. The purpose of the study was to develop and evaluate a nurse-led psychoeducational intervention for gastrointestinal cancer patients receiving chemotherapy. Specific aims were to evaluate patient knowledge and acceptability; and feasibility of the intervention within nursing workflows. We conducted a single arm study grounded in the Science and Practice Aligned Within Nursing (SPAWN®) model. A nurse-led, interdisciplinary team designed an evidence-based, psychoeducational intervention delivered by oncology nurse navigators. English speaking adult patients receiving care in the Center of Gastrointestinal Oncology of a comprehensive cancer center scheduled to start a new chemotherapy regimen were enrolled to participate. We utilized a multimedia tool in a series of 4 systematic encounters between the patient/caregiver and nurse. Outcomes measured were a comparison of pre and post intervention patient knowledge, acceptability of the intervention (defined as a score of greater than or equal to 24 on the adapted Acceptability E-Scale), and feasibility within the clinic environment. Data were analyzed using descriptive statistics and t-tests. A total of 51 patients were approached of which 49 consented (96%), with the final sample of 45 participants completing the study (29 with pancreatic cancer and 16 with colorectal cancer). Patient knowledge increased significantly in pancreatic cancer patients following the intervention ( $p=0.05$ ). The mean acceptability score was 31.67 which indicated high acceptability and usability of the intervention. Feasibility indices ranged from 85–100% for successful completion of the 5 nurse/patient encounters. This study provides evidence to support the efficacy and feasibility of an intervention coordinated to provide incremental delivery of psychoeducation to patients starting on treatment with chemotherapy. This evidence-based approach can be implemented within the oncology nurse navigator role to support patients through chemotherapy.

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#### **A PERCEIVED PREPAREDNESS FOR SURGERY SURVEY IN A POPULATION OF PATIENTS WITH PANCREAS CANCER AND RELATED CONDITIONS**

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Category: Patient Education and Safety

According to the American Cancer Society 56,770 individuals will be diagnosed with pancreas cancer in 2019. Those with pre-malignant pancreas lesions and benign conditions are also eligible for resectional hepato-pancreatico-biliary (HPB) surgery. This study is the first to address their pre-operative needs and generates nursing knowledge. The purpose of this study was to determine the perceived level of surgery preparedness of patients at a high-volume NCI-designated cancer center specializing in surgery for HPB cancers and conditions, in order to improve the quality of the patient experience and clinical outcomes and to evaluate the pre-operative educational materials. This descriptive study utilized convenience sampling to collect information via questionnaire and the electronic medical record from 50 post-operative HPB patients regarding their perceived level of surgery preparedness on 11 areas of post-operative importance. These areas broadly included: ambulation, pain management, diet restrictions, discharge planning, involvement of a case manager, and specific discharge medications. The questionnaires were administered to post-operative HPB patients on a single, high-volume inpatient unit over 6 months in 2019. Fifty individuals with HPB conditions were surveyed. The sample included 28 women and 22 men between the ages of 39 and 82 years. Cancer was the primary indication for surgery; pancreas cancer accounting for 56%, followed by 14% with pre-malignant intraductal papillary mucinous neoplasms and 12% with peri-ampullary cancers. The pylorus preserving pancreaticoduodenectomy was performed in 60% of patients. The average post-op length of stay (LOS) was 5.5 days. Eighty percent of the respondents felt either well or moderately well-prepared for the planned procedure. Overall, more men (26%) felt well-prepared than did women (18%). The oldest patients (>80 yrs) felt only somewhat prepared. Of 11 areas queried, patients seemed least aware of discharge planning, the need for long term medications and the involvement of case management. Individual written comments indicate that there is room for improvement in the level of detail in the pre-op

information. As a result of these findings we are developing targeted educational tools to bridge the outpatient and inpatient environments. Special focus on discharge planning and needs of the elderly is paramount. Improving preparedness for HPB surgery has the potential to improve clinical outcomes, increase quality and patient satisfaction, decrease LOS and reduce time to adjuvant therapy.

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### DEVELOPING A PORT-A-CATHETER MANAGEMENT COURSE TO EXPAND NURSING COMPETENCY IN NON-ONCOLOGY AREAS

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Category: Professional Development

The port-a-catheter ('port') is a type of central venous access device (CVAD) implanted underneath a patient's skin to administer various treatments and also to draw blood specimens. Its management is a unique skill specific to nurses providing patient care in the oncology clinical areas, and also requires continuous exposure and skills repetition to gain mastery and proficiency. With the increase in patients with implanted ports being admitted in non-oncology areas at this health care institution for various reasons, there became an increased need to train these non-oncology nurses on port management to safely care for these patients. The goal of the course was to increase the number of nurses house-wide on who can safely manage ports, thereby decreasing the sole burden placed on this facility's oncology nursing staff as the 'go-to' nurses when the need to access, de-access, or de-clot a port arises in non-oncology clinical areas. A delay in patient care was also identified in numerous occasions when the non-oncology units await on the oncology RN (who usually has his/her own patient assignment) to arrive manage a patient's port needs. The oncology nurses at this facility have been historically called to manage various patients' port needs in all the non-oncology clinical areas. This assisting oncology nurse is usually in patient care staffing and would typically need to temporarily suspend his/her own patient assignment in order to tend to another patient's port needs on a different clinical unit. Generally, the oncology nurse would not be available immediately to provide this needed assistance at the time of request. This is because the nature of these 'call for help' telephone calls are immediate and not pre-planned, necessitating unanticipated

interruption in the oncology nurses' work flow to accommodate a patient's port need in another unit. A delay in patient care had been identified in numerous occasions when the non-oncology units await on the oncology RN (who usually has to make instantaneous last-minute arrangements for his/her own patient care) to arrive and access, de-access, or de-clot a patient's port. Furthermore, improper EHR documentation of the port management had also been identified as a challenge in the non-oncology clinical areas due to very minimal exposure to ports. As such, proper EHR documentation was incorporated as part of the course curriculum.

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#### IMPLEMENTING A TIMED VOIDING PROGRAM IN AN ONCOLOGY UNIT

**Maria Ortega De Vargas, RN, BSN, OCN®, UCLA, Santa Monica, CA; Amanda McKaig, BSN-RN, OCN®, UCLA Medical Center, Santa Monica, CA**

*Category: Patient Education and Safety*

Falls are known to prolong hospital stay, increase mortality, and increase hospital costs. In 2018, an oncology unit experienced a high number of falls despite numerous efforts to reduce falls. It was found that 60% percent of those falls occurred in or on the way to the bathroom. The oncology population has many risk factors for falls including disease process and side effects of medications. Additionally, aggressive hydration causes patients to have urgent and frequent urination needs. A timed voiding program was piloted to target those at high risk for falling and assist them with toileting needs regularly to reduce urgency and impulsivity. A hospital-wide survey was conducted and revealed that nurses and nurse assistants helped patients with toileting needs only when patients called. In fiscal year 2019, a timed voiding program was initiated. Nurses and nurse assistants worked together to assist high fall risk patients with voiding on a timed schedule. A visual aid was placed on the door of high fall risk patients to remind staff that these patients need to be assisted on a timely schedule. Patients and families were educated on timed voiding, as well as other fall interventions. From fiscal year 2018 to fiscal year 2019, falls decreased by nearly 60%, with a 73% reduction in falls with injury. These results support that proactively assisting patients on a time voiding schedule positively impacts patient safety and reduces falls with injury. Oncology patients can benefit from a timed voiding program as it has shown to reduce falls and falls with injury. Time voiding had not previously been part of the institution's

fall prevention program. While not all falls can be prevented, the oncology unit had dramatic results after implementing the time voiding program. In fiscal year 2019 the institution has adopted this as a hospital-wide initiative.

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#### STATUS AND STRATEGIES OF SAFETY MANAGEMENT OF ANTINEOPLASTIC DRUGS AMONG ONCOLOGY NURSES IN SOUTH KOREA

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*Category: Oncology Nursing Practice*

Oncology nurses are at risk for adverse health consequences from unintentional chemotherapy exposure due to the large volumes of agents delivered and the absence of regulatory enforcement. The Korean oncology nursing society (KONS) published safe-handling recommendation in 2006 and 2017. Guidelines recommend building the safe work environment and personal protective equipment (PPE) to reduce healthcare worker occupational exposure. The purpose of this study was to describe the self-reported use of personal protective equipment (PPE) by oncology nurses while handling hazardous drugs (HDs) and to assess related factors on precaution use. The study used a descriptive, correlational design. Oncology nurses who are membership of KONS were asked to participate if they handle HDs between September 2018 and November 2018. Self-report survey included the general characteristics, organizational structures, and use of PPE while handling of HDs. One hundred twenty-five participants were well educated (95.2% had a bachelor's degree or more), experienced (13.2±6.8 years in nursing and 8.6±4.7 years in oncology). The rate of exposure to the skin and eyes in the past year were 68.8% and 8.09% respectively. In the use of PPE, glove was 4.31±0.12 out of 5 points and gown for drug preparation (30.2%), drug administration (50.3%), and handling excretions (20.5%) were reported. Oncology nurses have used gloves for HD handling, however, gown use remains comparatively low. Ensuring adequate staffing and resources and standard of practice may protect oncology nurses from harm. Nurses must follow the safety guidelines to reduce the risks of HD exposure and know ways to reduce exposure. Appropriate PPE and encouraging its use are very important to create the safety work place.

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### **NURSING STRATEGIES FOR PREVENTION OF MICROVASCULAR COMPLICATIONS WITH NIPPLE-SPARING MASTECTOMY**

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[Category: Oncology Nursing Practice](#)

Nipple-sparing mastectomy (NSM) has slowly been adopted in the United States due to concern that the nipple-areolar complex (NAC) could potentially be a source of cancer recurrence. NSM carries both oncological and surgical concerns. Surgical concern is preserving viability of the NAC and preventing necrosis. The oncologic concern is increasing the risk of cancer recurrence. A nursing concern is the impact on the patient's self-image and sexuality. To assess and prevent microvascular complications, surgical oncology nurses need to be educated on assessment, documentation, and interventions for patients undergoing NSM. Adult learners use a variety of styles to incorporate learning into their nursing practice. A review of the surgical oncology and plastic reconstructive surgery was conducted. A power point presentation was developed by two surgical oncology nurse practitioners (NP's). This was presented by the NP's to the surgical oncology nursing staff on a surgical oncology and plastic surgery unit. This was recorded and placed on the institutions website. A poster was developed and placed in the surgical oncology conference room to educate new nurses and for review of the staff. A pre and posttest was administered to the staff who attended the live power point presentation. This information was used to emphasize points on the poster. Surgical oncology nurses play a critical role in preoperative and postoperative care of the patient undergoing NSM. Preoperative care involves educating the patient on the procedure and postoperative care after discharge. Immediate postoperative care encompasses assessment, fluid status monitoring, and medication to improve circulation to the NAC. The literature review and information presented in the power point presentation will be utilized in a paper submitted to a peer reviewed journal to enhance the body of nursing knowledge.

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### **CONFRONTING THE MYTHS OF THE NEED FOR LENGTHY NPO TIME PRIOR TO PROCEDURES: AN EFFORT TO CHANGE**

### **THE STANDARD OF CARE IN THE ONCOLOGY SETTING**

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[Category: Oncology Nursing Practice](#)

Interventional Radiology (IR) procedures are rescheduled/delayed without notification causing decreased patient satisfaction and increased Length of Stay (LOS). During oncology leader rounds, a patient was kept NPO since midnight. At 1700 that day, after inquiries to IR, the procedure was cancelled. The NPO status was removed, but ordered to begin again at midnight. Adding anxiety to the situation, the result of the procedure would be determining the patient's next course of care—treatment versus hospice. The situation added more distress to the patient. The story is not unique. Versions of the story frequently replay in the oncology setting. The ultimate purpose of the project is to lead the way in dispelling the myth of the need for lengthy NPO times prior to procedures and to demonstrate decreasing the time will improve patient satisfaction without compromising results. After performing a problem analysis, an IR Tracker was created. IR staff monitored the tracker and notified the primary nurse by 1500 of cancellation of procedures. The patients' NPO statuses were removed in time to have dinner trays delivered. In Sept 2018, IR procedures for inpatient oncology patients were rescheduled or cancelled after 1700, 12% and 4% respectively. After intervention of the tracking process the percentages improved monthly. By March 2019, percentage of inpatient oncology patients who had their IR procedure cancelled fell to 0%. The percentage of procedures cancelled after 1700 also fell to 0%. Patient complaints during leader rounding of delayed procedures also decreased. The tracker has improved communication, resulting in NPO statuses being removed earlier allowing time for patients to have dinner trays delivered. Discussions have occurred to have the tracker process expanded. Oncology team members brought the project to the Vice Presidents of Nursing where the project was enthusiastically received. Meetings with the physician leader of Anesthesiology as well as the leaders of IR, are indicating a future practice change. Decreasing the amount of time of NPO status prior to the majority of IR procedures was proposed. Potential practice change to decreasing the start time of NPO status to 0500 versus 0000, is being discussed. Future goal is for the practice change to go into effect for all inpatients.

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### HOW DOES VIRTUAL REALITY

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Category: Symptom Management and Palliative Care

The stress of traveling, expense, long wait times and side effects take a toll on oncology patients. Virtual Reality (V.R.) is an inexpensive service that offers distraction, stress relief and entertainment to the long day our patients spend receiving their cancer treatment. V.R. is a three-dimensional, computer generated environment which can be explored and interacted with by the patient thus relieving symptoms such as pain, boredom and anxiety. Distraction techniques including the use of V.R. have been proven to alleviate these symptoms. To pilot the usefulness of V.R. in a large cancer infusion center we utilized the following steps: Identifying the time of day, length of session and how many patients would be offered the VR therapy. Trained nurse ambassadors and volunteers were utilized to identify and assist with the virtual reality experience for the patients. Screening of potential candidates is assessed the day before or the day of clinic. Patients that have long treatments, multiple day therapy, pain crisis, long wait times or mildly anxiety are great candidates. An explanation of VR and permission to participate is crucial to ensuring a positive experience. Patients that have short treatments, are extremely anxious, have active infections or disease related hindrances (such as head and neck patients) are not good candidates. The nurse should pre-screen patients for appropriateness and gauge the patient's interest before being approached by the volunteer. Nurses' who have experienced the virtual reality program are best equipped to introduce the idea to patients. Patients meeting screening criteria should be offered the experience regardless of age, background or ethnicity. Patients in the pilot reported that VR provides an excellent diversionary activity for those experiencing pain, stress or anxiety. Patients also provided the feedback that it is best to wait until treatment has been initiated to start the VR experience as they experienced anxiety about whether it would delay the start of their therapy. While there are many games and applications available on virtual reality, we have found that video experiences are best since they require minimal teaching and do not require the patient to learn to use controls. Virtual Reality therapy is an effective and easily implemented method of providing a calming activity for patients receiving infusion therapy.

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### CALL IT SEPSIS: IMPROVING HANDOFF COMMUNICATION TO IMPROVE SEPSIS CARE

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Category: Oncology Nursing Practice

Sepsis is a life-threatening condition that affects more than 1 million patients a year in the United States and remains the leading cause of death in U.S. hospitals. Multiple studies have shown that early sepsis detection and treatment is associated with decreased mortality. Sepsis is defined as life threatening organ dysfunction caused by a dysregulated host response to infection. Early identification and following sepsis bundles improve outcomes. Increasing the nurse's knowledge of sepsis, signs and symptoms of organ dysfunction, sepsis bundles and improved communication at handoff results in early recognition and treatment. The Brigham Health Sepsis Task Force implemented a quality improvement initiative to improve care for all suspected sepsis/septic shock patients. The initiative involves having ED, Medicine and Oncology providers and nurses utilize the mnemonic, "CALL IT" sepsis during all transitions in care. The "CALL IT" mnemonic: C-Culture, A-Antibiotics, L-Lactate, L-Lactate repeated, I-IVF > 30cc/kg, T- Tissue perfusion (MAP>65). Utilizing the Change Acceleration process Model (CAP) continued education and evaluation was implemented with the goal of improving handoff communication that included the sepsis bundle. The "CALL IT" sepsis mnemonic is used by the sending clinician at the end of the regular handoff. For each letter there should be a brief explicit update the status of each of these key sepsis processes of care. The aim for this to be used at shift changes, rapid responses and patient change of location and status. It is not the expectation that all the processes of care are completed prior to patient transfer. We anticipate that this communication and collaboration across all spectrums of a patients' care will reduce the time it takes patients to receive these key elements of care. To measure progress a pre and post survey of staff has been done. Using the rapid learning cycle assessment with in person audits done by the nurses on the Rapid Response team. Along with reinforcement education, and feedback emails sent to the individuals and teams. The goal of this quality



improvement project is to improve sepsis care utilize the mnemonic “CALL IT” Sepsis during all transitions in care.

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### **INTEGRATING COMPLEMENTARY THERAPIES WITH CURRENT EVIDENCE BASED PRACTICE TO IMPROVE PATIENT SATISFACTION, OUTCOMES AND COMPLIANCE**

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*Category: Symptom Management and Palliative Care*

In hospital or an ambulatory care facility patients have access to our knowledge and expertise. When at home often side effects & symptoms that could have been managed simply are endured (“I didn’t want to bother you.”). Suffering that could have been alleviated with simple non pharmacological interventions. Unpleasant experiences lead to therapy non-compliance, increased anxiety, fear, aggravation of symptoms. Effective use of ancillary medications to manage nausea, when anti-emetic is also ejected, can be enhanced with the use of a citrus aromatherapy combined with deliberate breathing technique. Simple positioning, body mechanics and packing with pillows to alleviate pain, formation of decubitus even with ambulatory patients are other simple, cost effective and practical means improving comfort and satisfaction. Giving patients and caregivers simple, cost effective, easily implemented tools improves compliance, patient satisfaction and outcomes, even if the outcome is death. Caregivers also learn how to contribute simply and effectively to care. Triggering the limbic system, aromatherapy redirects away from unpleasant stimuli sensation. Citrus essential oils are considered lightening and refreshing, can be diffused or a few drops on a cosmetic round. Lavender is well known for its ability to soothing and relaxing. Applying essential oils to acupressure points for nausea, pain, stress enhances effectiveness. Guided breathing technique induce focus, enhance effectiveness of aromatherapy, improve oxygen and carbon dioxide levels. Body mechanics, employing packing with pillows to maintain alignment reduces pressure on the spine, muscles and ligaments. 2–3 hour re-positioning prevents decubitus. Simple interventions, cost effective and easy to implement when taught and evaluated for effectiveness benefit the patient and those involved in their care. Greater comfort, decreased stress, knowledge that there is something quick, that does not require a prescription or presence of a professional provides physical and psychological comfort.

Pure 100% essential oils, pillows, a calm soothing voice are obtainable for the vast majority of patients. Compliance with ancillary medications, oral pharmacological therapies improves outcomes, as does the ability to remain hydrated and take in nutrition. These techniques are not new, innovation is the effective implementation and evaluation of these techniques by and for our patients and their when we are not present. Assessing the effectiveness of our education, teach/ repeat, follow up phone calls/emails/texts.

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### **BACK TO THE BASICS: NURSING CARE TO REDUCE PAIN AND LESSEN ANXIETY IN THE INPATIENT ONCOLOGY PATIENT**

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*Category: Oncology Nursing Practice*

Pain and anxiety in the oncology patient population are a highly reported symptom of cancer and side effect of treatment. Cancer patients often report experiencing feelings of anxiety, depression, isolation, and pain through the care trajectory. Approximately 48-80% percent of patients with cancer report using integrative therapies, with the most common being massage. In a study conducted at a major cancer center, there was found to be a 50% decrease in pain, fatigue, stress, anxiety, nausea, and depression in those patients that had massage therapy. At our Magnet<sup>®</sup> recognized, NCI-Designated Comprehensive Cancer Center, pain and anxiety management is a necessary focus. The purpose of this abstract is to discuss an inpatient oncology unit’s efforts to decrease pain and anxiety levels related to cancer diagnosis and treatment. Our unit-based Patient Experience committee determined there was a need to increase nursing attention to special and personal needs. After reviewing the literature, there was significant evidence that hand massage could improve the patient experience throughout the trajectory of their care. In December 2018, baseline surveys were given to patients to determine if they felt hand massages would positively impact their care. In February 2019, nursing staff began performing one hand massage per day on either day or night shift. The nursing staff would give the patient a brief pre-survey on the day of admission, and a post-survey would be given after first hand massage. Integrative Medicine was consulted to provide education on hand massage technique, and a nursing resource tool was created for exclusion criteria. After implementation of this intervention, patient satisfaction scores were improved. In addition to this, the average pain rating decreased

by 1.4 on a 0–10 scale and the average anxiety rating decreased by 2.43 on a 0–10 scale. As a result of this intervention, hand massage should be considered an integral part of basic nursing care in the inpatient oncology unit. This ongoing initiative is continuing to follow Duffy's Caring Factors of facilitating a healing environment and appreciation of unique meanings through hand massages.

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### **ADOPTIVE CELLULAR THERAPY IN SOLID CANCERS: OVERVIEW AND KEY NURSING CONSIDERATIONS**

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*Category: Oncology Nursing Practice*

In the world of adoptive cell therapy (ACT), an exciting new cell therapy product is emerging. With chimeric antigen receptor (CAR) T-cell therapy already on the market for use against blood malignancies, it is imperative for oncology nurses to be aware of the new and promising T-cell receptor-engineered (TCR) T-cell therapy for solid malignancies. This therapy is a type of autologous cellular immunotherapy in which peripheral blood lymphocytes are genetically modified to express T-cell receptors that are most reactive against cancer antigens. The oncology nurse has the unique role of administering TCR T-cells at the bedside. This involves monitoring the patient, providing nursing interventions, and communicating adverse events and side effects (AE/SE) to the interdisciplinary team. The primary nursing goal is patient safety, evidenced by appropriate intervention to symptoms and escalation to intensive care if needed. In this retrospective case study, a comprehensive chart review was conducted to evaluate the patient's AE/SE. The patient, a 51-year-old male with stage 4 colon cancer, presented to a research institution to receive TCR T-cell therapy. A literature review was conducted using the PubMed database to determine known AE/SE of ACT. Data from the chart was analyzed against current literature to determine key nursing considerations for patients receiving ACT. The preparative lymphodepleting regimen caused pancytopenia, requiring infection and bleeding precautions. Following administration of the TCR T-cells and Interleukin-2, the patient experienced toxicities including hypotension, anuria, respiratory distress, tachycardia, confusion, nausea, and fevers. The evidence shows that these symptoms fit the picture of cytokine release syndrome (CRS): a systemic inflammatory response and, potentially, an

oncologic emergency. The nurse caring for the patient receiving ACT must be diligent in cardiopulmonary assessment, fluid status monitoring, and symptom management. The nurse must ensure that the patient is aware of the potential effects of treatment through ongoing education. Throughout the patient's hospital course, a culture of safety was maintained by placing the patient on high-falls precautions and neutropenic precautions, and establishing an open line of communication with the interdisciplinary team. The patient was rapidly transferred to the intensive care unit when his oxygen requirement increased and hypotension necessitated vasopressors. As innovative cell therapy is incorporated into standard practice, prospective studies should be conducted to capture ongoing and arising nursing considerations.

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### **DATA DRIVEN MEDICATION INFUSION SAFETY THROUGH THE USE OF SMART PUMP DEVICES, STAFF ENGAGEMENT AND LIBRARY IMPROVEMENTS IN A MAJOR, MULTI-FACILITY AMBULATORY ONCOLOGY ENVIRONMENT**

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*Category: Oncology Nursing Practice*

Medication errors typically account for 20 percent of all medical errors in the United States. Over the years, many efforts have been made to help reduce medication errors, including the introduction of IV smart pump technology in the early 2000s. One of the most significant benefits of smart pump technology is the decreased risk for medication errors during the administration process. Smart pumps, although not truly "smart" on their own, dependently function according to drug libraries and nurses' utilization of incorporated safety features. Comprehensive drug libraries allow nurses to effectively utilize smart pumps for accurate medication administration. Drug libraries establish safe dosing parameters for each medication using "soft" and "hard" limits. In January 2018, all primary Levine Cancer Institute (LCI) sites within Atrium Health converted to new Alaris IV smart pumps. As Alaris pumps provide the ability to utilize a drug library during medication administration, it was imperative to ensure proper nursing use. Therefore, shortly after implementation, LCI nurses were asked to notify the pharmacy team each time a medication required a manual override while programming the dose, so that adjustments could be made to the dosing parameters in the drug library.

Due to the collaborative work between the LCI pharmacy team and nurses, a rather robust drug library for our ambulatory oncology sites has been developed. Nursing compliance for proper use of the Alaris pump drug library can be measured via direct observation or through data extraction using the smart pump software. Data extracted from the smart pumps is used to encourage the use of the drug library, improving overall safety of medication/chemotherapy administration. Because a manual override option is available which allows nurses to infuse medications without using the drug library, monthly reports for each LCI infusion site are generated to communicate nursing compliance. LCI nursing leaders receive these reports and provide direct feedback to their nursing staff. Many reasons have been cited in our system that account for non-compliance, including lack of education, time, challenges with the established medication limits in the drug library, and poor accountability. However, holding nursing staff accountable for drug library use, providing re-education as needed, and pharmacy collaboration has resulted in drastically improved compliance rates and increased patient safety.

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### **TRANSFORMATIONAL LEADERSHIP INCREASES NURSING CERTIFICATION**

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**Category: Professional Development**

Transformational leadership shapes the goals and values of staff to achieve a collective purpose. The members of the oncology divisional committee identified barriers to nursing certification. As leaders, and mentors they implemented multiple interventions to promote nursing certification. Specialty certification in nursing is associated with improved quality outcomes and patient satisfaction. The use of transformational leadership empowers the clinical nurse to seek to better themselves professionally and challenge their knowledge to improve the outcomes of their patients. Certification ignites the desire to advance professional practice for those obtaining it and the nurses who are witnessing the pursuit. The Oncology Divisional Committee which is made up of clinical nurses from throughout our division had a shared vision for increasing our certification rates. The engagement of our Committee was critical in creating a team environment where staff can both inspire and motivate one another to achieve certification. The current certification rate for our Division is 11%

and we created a shared goal to increase certification by 14% with a final goal of 25% by the close of FY 19. In considering strategies to enhance our certification rates we felt it was critical to explore the current barriers to achieving certification. A survey was sent to all nurses in the oncology division to identify and rank the barriers to certification. The response rate was over fifty percent. Respondents identified the cost of certification, lack of understanding of the process, fear of not passing, and lack of study materials as the barriers. We utilized the ONS free retake certification program, created a mentoring program where our certified nurses encourage nurses planning to sit for the examination by providing support and guidance as well as test taking strategies. We ensured all information and support materials were accessible. Success will be defined as an increase in nursing certification by ten percent

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### **RELATIONSHIP BETWEEN CANCER HEALTH LITERACY AND HOPE IN OUTPATIENTS RECEIVING CANCER TREATMENT**

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**Category: Patient Education and Safety**

Cancer patients with poor health literacy may have misconceptions about their disease and ineffective communication with their health professionals, leading to unnecessary interventions or poor adherence to their treatment plans. In addition, cancer patients with a poor understanding of their disease may experience greater anxiety and experience dissatisfaction with their care. Assessing hope in the cancer patient is important as hope impacts the way patients cope with physical, psychosocial and spiritual issues that arise during their cancer journey. No literature exists about a correlation between cancer health literacy and hope. The primary objective of this study is to determine if there is a relationship between hope and health literacy in cancer patients. We conducted this study using an exploratory/descriptive survey design administered to newly

diagnosed or recurrent cancer patients within one year of their diagnosis. Two validated tools (Herth Hope Index and the Cancer Health Literacy Test-CHLT) were used to gather data. Our final analysis included data from 150 participants. We found a positive correlation between hope and health literacy overall ( $p=.008$ ;  $r=.216$ ) which was our primary objective. We also found a correlation between health literacy and age, gender and education level. On average, females scored 25.43 and males scored 22.89 out of a perfect score of 30.0 on CHLT. This is interpreted as a statistically significant difference ( $p=.00$ ) between the health literacy level of females compared to males. This finding may be clinically relevant to nurses in helping patients understand their cancer diagnosis and treatment. Cancer is a life-changing diagnosis that is processed differently by individuals. Level of health literacy is used as a possible explanation for why some individuals are at risk of noncompliance with prescribed treatment. This final analysis suggests that gender may play an important role in patient education and that females may possess a better understanding of their cancer diagnosis and treatment than males. Also, younger people may have a higher level of health literacy than those who are older. What really matters to our patients? When teaching about treatments and diagnosis, be mindful of gender, generational and educational differences. Our study found a positive relationship between hope and health literacy, therefore, if we affect health literacy we can potentially affect hope.

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#### **AMBULATORY ONCOLOGY KEY CONCEPTS: A PATHWAY TO DEVELOP AND EMPOWER AMBULATORY ONCOLOGY NURSES**

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Category: Professional Development

Shine a light on lack of training and experience nurses receive in nursing school regarding ambulatory oncology. This lack of preparation can negatively impact their transition into the complex and challenging ambulatory oncology setting. Literature shows that an increased number of new graduate Registered Nurses are moving into the ambulatory setting due to nursing shortages. This creates a challenge as robust training

doesn't often exist in the ambulatory oncology setting. An analysis of local universities showed a lack of ambulatory oncology nursing in the curriculums. Few opportunities are given in nursing school to build clinical understanding of ambulatory oncology nursing. In addition, the Huntsman Cancer Institute Ambulatory Clinical Practice Council was surveyed. Multiple needs were identified and used to build this program. The purpose of this project was to provide a robust ambulatory oncology didactic program for Registered Nurses. Primary objectives include: empower the Registered Nurse to be a safe and prepared leader, increase employee satisfaction, nurse retention, and patient safety in the complex ambulatory oncology setting. A two day curriculum was developed including: telephone triage with live simulations, physician and patient communication, management of emergencies in the ambulatory setting, critical thinking and quality, oncology patient care coordination, oncology nursing resources, and EMR tips and trouble shooting. In addition to the class evaluation, nurses will be given a pre and post knowledge assessment at the beginning and end of the course to evaluate that course objectives were met. Data projections post course include an increase in confidence to be a safe and prepared leader, employee satisfaction, nurse retention, and patient safety in the ambulatory oncology setting. This program will go live October 17, 2019 at Huntsman Cancer Institute and is the first step towards an Ambulatory Oncology Transition to Practice program. This is a unique and innovative program reaching out to often times overlooked nurses working in the oncology ambulatory setting. This is the first program of its kind at the Huntsman Cancer Institute and at the University of Utah UHealth system.

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#### **PATIENT HOME PUMP DISCONNECTION OF THEIR ELASTOMERIC PUMP**

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Category: Patient Education and Safety

Atlantic Health System worked study to allow patients who are leaving the hospital with chemotherapy to disconnect their pumps in the convenience of their own home. Patients receive chemotherapy via an elastomeric pump and after extensive patient teaching from a certified oncology nurse, would be able to flush their port at home, remove the port needle access and dispose of the waste in a chemotherapy bin. The purpose of the project was to identify an area in an ambulatory setting where patient satisfaction could be improved. Using a qualitative approach, nurses will evaluate the

patient's understanding of the teach back method to improve patient and provider communication. Current practice: these patients return to the infusion suite 48 hours after their chemotherapy is started, then the nurses dispose of the empty 5-FU pump. This current practice leads to patient dissatisfaction because the patient needs to return just days after their treatment has ended for a simple 20-minute pump disconnection. Patients enrolled in this study are chosen based on their ability to learn safe handling of chemotherapy and the disconnection process. For patients to be able to participate in this study, they need to perform ADL's and successfully teach the Oncology nurses that they understand the teaching performed via teach back. Roadblocks with this quality improvement measure were evaluated and overcome: cost to the patient, supplies needed to perform task at home are provided by the institution. Evaluation: (a) Improved patient satisfaction in an ambulatory infusion suite, (b) Satisfaction measured by giving patients pre and post surveys asking about their experience and the educational materials presented, and (c) Striving for is patient experience, and satisfaction throughout all AHS sites for patients to have this convenience offered to them. Nurses evaluated the patient's understanding of the teach back method to improve patient and provider communication. Innovation: Patient education materials developed and placed into EMR which included: Pt discharge instructions, Smart set for charting, educational charting for nurses and appointment blocks in the schedule to identify the patient returning to the infusion room. Once achieved, our team would have the ability of streamlining this practice across all of Atlantic health's campuses to meet the necessities of satisfying our patients.

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### EVALUATION OF THE EFFECTIVENESS OF THE TOXICITY PREVENTION PROTOCOLS OF AN ONCOLOGICAL CLINIC

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Category: Symptom Management and Palliative Care

Chemotherapy may produce adverse reactions interfering with the proposed treatment. Among the most frequent reactions, stand out hematological and gastrointestinal toxicities. It is known that about 50–75% of patients submitted to chemotherapy have nausea

even after prophylaxis. Mucositis is one of the events that occur in 40% of patients treated with conventional chemotherapy and in approximately all patients treated with head and neck radiation therapy. Chemotherapy-induced neutropenia is considered the most serious complication of cancer treatment. The purpose of this project was to evaluate the effectiveness of toxicity prevention protocols for nausea and vomiting, mucositis and neutropenia after implantation of a Kibana management tool. This is a retrospective study, where the data for analysis were extracted from the notifications registered by the nursing team on the toxicity graduation form and compiled by Kibana, one of the components of ELK Stack (Elasticsearch, Logstash, and Kibana), in the period from November 2018 to May 2019, considering patients and excluding duplicities. The data were compared with the notifications made to the pharmacovigilance service and the scientific evidence. During the period, 1049 Electronic medical records were analyzed. 145 (13.8%) reports of patient nausea were reported. About 84.8% of the reports were grade 1, grade 2 (11.7%) and grade 3 (3.5%). Regarding mucositis, there were 61 reports (5.8%). In 70.5% of the records, they reported grade 1, 23% grade 2 and 6.5% grade 3. A total of 86 (8.2%) patients presented neutropenia, being 24.4% grade 1, 20.9% grade 2, 40.7% grade 3 and 14% grade 4. From the analysis of the data using the described methodology, the effectiveness of all the implanted protocols is verified. The results support the revision of the inclusion of primary prophylaxis with growth factors of granulocytes in chemotherapy protocols with a higher prevalence of neutropenia and more objective insertion of hematological parameters into a toxicity graduation form, in order to minimize errors of interpretation and underreporting. The present study demonstrated the relevance of the involvement of the multidisciplinary team, contributing to the appropriate management of the symptoms and resulting guaranteeing safety in patient care.

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### ONLINE JOURNAL CLUB: ENHANCING TEAM, EDUCATIONAL, AND PROFESSIONAL DEVELOPMENT THROUGH PARTICIPATION IN AN ONLINE LEARNING COMMUNITY

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Category: Professional Development

Our comprehensive cancer center promotes advancement of nurses' education and leadership through our

clinical ladder program. Involvement in a journal club as a coordinator or a participant are clinical ladder activities. Reviewing literature in a journal club is significant because critical appraisal and use of evidence in practice is the foundation for safe nursing practice. Our ambulatory nurses work in geographically separated, oncology disease line specific units. The nurses expressed difficulty finding time to meet for journal club. They also expressed a desire to have more interaction with their peers on other units to learn from each other's solutions to problems, share best practices, and advance their knowledge of other disease lines. The purpose of the project was to create an online journal club allowing the nurses to participate at a convenient time with nurses from other units. The club would facilitate participation in clinical ladder, knowledge sharing, development of leadership skills, and sharing best practices. The first challenge was building a website to house the online journal club that functioned on all platforms satisfying the nurses' accessibility request. The second challenge was to ensure our institution's clinical ladder requirements would be fulfilled by an online journal club and then post them on the website for reference. A clinical ladder handbook link was added to facilitate location of additional activities. To encourage professional development, nurses in the coordinator role were empowered to lead the discussion on articles that they found and posted independently. A tutorial section was added to the website including links to instructions on searching for evidence, posting a journal article or discussion questions, and replying to participants' posts. An article describing how to effectively lead online discussions was also posted. The final piece added to website was instruction on how to substantively respond to their peers to advance the discussion. The nurses expressed excitement about participating in the online journal club. The percentage of nurses participating in journal club increased. Interviews with the nurses verified the online journal club met their needs. Nurses reported improved opportunity to participate in the journal club, increased networking with nurses from other units, and satisfying shared learning keeping them up-to-date on rapidly changing oncology practices.

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### **TELEPHONE TRIAGE FOR AMBULATORY ONCOLOGY NURSES**

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**Category: Oncology Nursing Practice**

Telephone Triage in the ambulatory oncology setting can be very complex, requiring advanced skills, critical thinking, and appropriate utilization of resources to ensure a safe patient disposition. Often, nurses are hired with little training in either oncology and/or the skill of safe telephone triage. This project provides a telephone triage curriculum for ambulatory oncology nurses. Primary objectives include: increase patient safety, nurse comfort and competence on the phone, and employee and patient satisfaction. With support from hospital administration, ambulatory service line managers, social work, and clinical staff education, a task force was created to develop the curriculum. The curriculum features: a four hour instructor led course involving a two hour lecture, followed by a two hour live simulation. The lecture focuses on key concepts such as, fundamentals of telephone triage, safe patient disposition, and appropriate utilization of new and existing resources. Some of the new resources created include: telephone application of HIPPA guidelines for patient verification, standardized EMR documentation, and a protocol for the management of the suicidal patient. In addition, the nurses were given a copy of the book titled, "Telephone Triage for Oncology Nurses," and taught standardized assessment tools. These processes and standards resulted in significant organization wide changes. Nurses within our facility were surveyed prior to the creation of the curriculum to vote on identified gaps to their orientation and success in the ambulatory oncology setting. The survey showed that telephone triage was the number one identified need. The Ambulatory Clinical Practice Council was presented the survey results and they provided valuable feedback on the development of the curriculum. All students are surveyed, using a Likert scale pre and post course assessment, to ensure the class is applicable to their clinic setting and meeting their needs in increasing patient safety, comfort and competence on the phone, and employee satisfaction. Discussion/ Plans for the future: Continue to offer the course to all new ambulatory oncology nurses and preceptors at Huntsman Cancer Institute. In addition, the class will also be modified to be offered to ambulatory nurses working within the University of Utah Health organization. This is the first Telephone Triage course to be developed at Huntsman Cancer Institute.

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### **IN THE WORLD OF ELECTRONIC DOCUMENTATION, IS THERE A PLACE FOR A PAPER TOOL?**

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Category: Coordination of Care

To err, is human but too frequently the root of medical errors is often miscommunication. Even with the best of EMRs, the flow of real time communication can lag. Both nurses and patients find it extremely frustrating to cope with the myriad of poorly communicated modifications in treatment plans. Additionally, as an urban treatment center, serving a large non English speaking population, improving communication was paramount to ensuring safety in these vulnerable patients. With this goal in mind, we convened a focus group comprised of both infusion center RNs and Practice RNs who developed a one page, simple paper handoff tool allowing for communication across care settings within our ambulatory oncology center. This tool allowed for quick descriptions of the following: grading of toxicities, adjustments in supportive care or new medications, treatment delays, dose modifications, and follow-up plans, including imaging studies. Prior to implementation, a survey of infusion center nurses revealed a consistently high number of phone calls to providers resulting in delays in treatment, impacting both patient and family caregiver satisfaction. This communication tool was developed and piloted. Several revisions were made based on staff feedback. Final revisions were made and implemented across our cancer center as a standard operating procedure effective May 2019. Survey pre and post implementation revealed decreases in: patient wait time for chemotherapy, RN to provider phone calls, chemotherapy ordering errors and improved chemotherapy safety. Our paper communication tool did not significantly burden providers and increased team cohesiveness and function leading to improved patient and family satisfaction. It improved clinic work flow and decreased chair time thereby improving operational efficiency. One outcome that became readily apparent was the improvement in

care coordination, especially among our non English speaking patients. Both face to face and written communication still have important roles to play in optimizing the patient experience. Our tool provided proof of principle that there is a continued role for the use of paper!

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### **ENSURING QUALITY CANCER CARE THROUGH THE INCORPORATION OF A COMPLEMENTARY AND INTEGRATIVE MEDICINE PROGRAM IN THE OUTPATIENT RADIATION ONCOLOGY SETTING**

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Category: Symptom Management and Palliative Care

Being diagnosed with cancer can cause increased anxiety and various modalities used to treat the cancer may cause the patients to experience increased pain. We know that distress, specifically anxiety can interfere with a patient's response to treatment and have a negative effect on their overall health and well-being. Distressed emotional states also often generate additional somatic problems, such as sleep difficulties, fatigue, anxiety and pain. The project goal was reduction of anxiety and pain related to cancer diagnoses and subsequent Radiation Treatment, enhancing overall patient satisfaction and improving patient's likelihood to complete treatment without breaks and ultimately have a better clinical outcome. Complementary and Integrative Medicine was offered to all patients undergoing outpatient RT, at no cost to the patient throughout their course of treatment. Complementary and Integrative Medicine Program offerings include: Tai Chi, Acupuncture, Reflexology and Introduction to Mindfulness-Jon Kabat-Zinn, Mindfulness-Based Stress Reduction (MSBR). ACS CoC Standard: ER10/ Psychosocial Services (edited) Psychosocial Distress: extends along a continuum, ranging from common normal feelings of vulnerability and sadness to problems that can be disabling, such as depression, anxiety, panic, social isolation and spiritual crisis. Patient participation in the complementary medicine offerings are completely voluntary as well as the completion of the evaluation/outcome form below and over 500 treatments were given over the course of the past six months. A data collection tool (paper form) was provided to our patients prior to treatment and again after treatment. Patients were asked to self-evaluate their pain and anxiety on a 10 point scale both before and after receiving therapeutic intervention; with 0 being no pain/anxiety and 10

being extreme pain/anxiety. When complementary medicine modalities are used in conjunction with standard medical treatments, the patients experience decreased pain and decreased anxiety. This improves the overall patient experience during cancer treatment and helps to minimize side effects, or at least make them more manageable for the patients. Statistically significant reduction in both patient assessed pain score and anxiety levels with complementary and integrative treatment participation, no matter which modality was selected. Improved patient satisfaction as evidenced by comments submitted directly from patients on both our post-treatment survey and Press Ganey comments.

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### **THE USAGE OF AN ACCUVEIN® FOR VEIN VISUALIZATION TO INCREASE REGISTERED NURSE (RN) CONFIDENCE IN INTRAVENOUS (IV) PLACEMENT**

**Laura Stepke, RN, BSN, BMTCN®, UCHealth, Aurora, CO**

*Category: Oncology Nursing Practice*

Peripheral IV insertion is a common practice in the hospitalized patient. RNs at a large academic medical center are utilizing the Clinical Resource Nurse (CRN) at an increasing rate for IV placement. Infusion Nurses Society standards indicate that using infrared light to illuminate vasculature assists RNs with IV placement. Two units currently using AccuVein® had subjective feedback indicating decreasing number of calls to the CRN. Decreasing the number of calls to the CRN optimizes time to assist with complex and potentially decompensating patients. Increasing RN confidence could decrease multiple IV starts, potentially contributing to increased patient satisfaction. The purpose of this project was to determine if utilizing AccuVein throughout the medical surgical division would decrease calls to the CRN and increase RN confidence in IV placement. Pre implementation, RNs surveys indicated a lack of confidence in placing a “difficult stick” peripheral IV. Three additional AccuVein devices were purchased for this purpose. Education was provided to charge RNs who educated floor RNs. Then data were collected from RNs to determine the number of IV starts, CRN calls and confidence level using the device. For the new graduate residency RN, an educational component was added to their IV class. These RNs completed a baseline and 6-month residency program survey with a question regarding IV skills confidence. Results were compared to previous cohorts without access to an AccuVein. Survey results from 213 RNs indicated

that 40% were successful on the first attempt and 24% on the second attempt for IV placement using the AccuVein. Those that responded only having one attempt, 81% were successful. Those that responded to having two attempts, 69% were successful. 75% of respondents indicated they did not call the CRN. 94% of respondents indicated they found the AccuVein helpful. 75% of respondents indicated they felt more confident starting peripheral IVs using AccuVein. With the new graduate nurse survey, more RNs responded to feeling completely confident at the 6-month mark than previous cohorts. Medical Surgical RN and new graduate RN access to AccuVein for vein visualization is an easy and effective intervention to increase confidence in peripheral IV placement. Increased confidence in placement leads to decreased IV starts for a patient, this should result in increased patient satisfaction.

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### **IMPLEMENTATION OF INDIVIDUAL PRE-TREATMENT EDUCATION CONSULTS IN THE OUTPATIENT ONCOLOGY CLINIC**

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*Category: Patient Education and Safety*

A cancer diagnosis can be a very stressful event in an individual's life. With the diagnosis; plans for treatment are quickly discussed and there is a perceived urgency to begin treatment. The use of chemotherapy/immunotherapy drugs in the treatment of cancers comes with serious, potentially life threatening side effects that require coordination of care among the patient and their health care team. Education by a competent oncology nurse plays an important role in the overall outcome of care. Education at the appropriate time can lead to more retained knowledge by the patient and the caregiver. Improve quality of life and a decrease level of stress can be results of adequate teaching of side effects, treatment plan and self-care. A seven question education evaluation was administered to all new treatment patients, in the oncology infusion setting, to assess baseline knowledge of education during a provider clinic visit on the topics of medication, treatment plan as well as how to contact office with urgent needs and further information. After



the implementation of the individualized pre-treatment education consult, new patients were given the same education evaluation and data was compared to look for improvement. Goal of pre-treatment education consults was to improve results of the evaluation with all scores at 90% or above. To avoid overload of information and allow more time for questions and discussion, a navigator led designated education consult would be scheduled on a separate day not correlating with a clinic visit. This one hour visit would occur prior to the initiation of treatment and include the introduction of social work and nutritionist. Patients/caregivers would be presented written information relating to the medications prescribed as well as an individualized detailed treatment plan by the navigator. Upon comparison of baseline data and the data across the first four quarters of implementation, improvement was seen in 5 of the 7 statements on the education evaluation. Implementation of pre-treatment education navigation consults improved the quality of education provided to patients beginning chemotherapy/immunotherapy regimens by increasing knowledge retained by patients. The evaluation process also gave insight into topics that may need reinforcement during subsequent clinical visits. The entire process provided additional opportunities for growth in education of the oncology patient receiving chemotherapy/immunotherapy.

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### STANDARDIZATION OF INFUSION PRACTICE BETWEEN MULTIPLE SITES WITHIN A HEALTH CARE SYSTEM

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Huntsman Cancer Institute (HCI) is an NCI designated Comprehensive Cancer Center at the University of Utah with five separate infusion centers. Two infusion centers are located on the main hospital campus. The other three centers are located at satellite facilities within metropolitan Salt Lake City. As leadership reviewed our incident reporting system, other cancer center practices, and literature on standardization, it was agreed that standardizing practice had the potential to decrease errors, improve the orientation process, support infection prevention practices, and improve patient satisfaction. An infusion Clinical Practice Council (CPC) was established to involve clinical staff in the decision

making process related to their nursing practice. This council was tasked with implementing guidelines for the standardization of infusion practices. With assistance from nurse educators, leadership and staff, a monthly didactic class was created for newly hired infusion nurses and covers such topics as hazardous drug administration, IV access, blood products administration, electrolyte administration, and clinical trials. An orientation checklist and a medication reference guide were standardized. Nursing checklists for extravasation of antineoplastic agents and severe hypersensitivity reactions were developed to guide nurses. A tubing chart was created and is updated routinely to assist nurses in using the correct infusion tubing for each agent. In an effort to reduce central line-associated blood stream infections (CLABSI), central line dressing kits were standardized throughout the institution. Infusion CPC was instrumental in trialing these products and ensuring compliance. Nursing notes in the electronic medical record were standardized to include pertinent information that would be readily available for health care providers. We reviewed our incident reporting system and noted a decrease in events. Exceptional Patient Experience reports showed continued improvement in patient satisfaction. The rate of CLABSI decreased significantly with the implementation of standardized dressing kits. The standardized infusion work flow facilitated the orientation process for the opening of the fifth infusion center. This intervention will provide consistent nursing practice and patient care. The optimization of this process should allow for creating an infusion center resource group which will assist us in sharing nursing staff among these five infusion centers.

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### CAFE 980

Wendy Thibodeau, BSN, RN, OCN®, Aurora Cancer Care, Milwaukee, WI

Category: Oncology Nursing Practice

Team members in Suite #980 revised their Infusion Room into a pod structure to assign nurses and patients to a specific pod. The population was patients within the clinic who were receiving infusion treatment. The goal was to improve workflow by decreasing the wait time from arrival to nurse encounter and to first medication administration and potentially increase patient satisfaction. Pre-project data was collected for one week in April, 2018 and then the pod structure was implemented. Post-data was collected for one week in December, 2018. The data revealed that the

pod structure reduced patient wait time from patient arrival to first nurse encounter from 10.6 minutes to 8.4 minutes, which is a 2.2 minute reduction. Data also revealed reduced patient wait time from patient arrival to first medication administration from 45.6 minutes to 38.6 minutes, which is a 7 minute reduction. By implementing a pod structure which assigns patients and nurses to one pod, this creates an environment which will save time from patient first arrival until they receive their treatment. Additionally, this offers an opportunity to improve patient satisfaction scores.

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### **CHALLENGES OF ONCOLOGY TREATMENT IN PATIENTS WITH ACTIVE METHAMPHETAMINE USE**

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**Category:** Psychosocial Dimensions of Care

Oncology treatment with surgical, systemic or radiation therapy, or a combination of the three, can be challenging for patients with physical comorbidities and social limitations. The addition of methamphetamine use can dramatically increase the technical difficulty of safe treatment of patients with potentially curable cancers. Methamphetamine use worldwide, as of 2014 statistics, affected up to 52 million people ages 15–64. At that time, it was the second-most widely used recreational drug behind cannabis. Methamphetamine use contributes to dental decay, but more significantly, raises the risk of cardiac failure and is highly addictive. Active use can cause non-compliance with treatment and self-care recommendations during oncology treatments, as well as contribute to increased risk of cardiac events during treatment. The purpose of this project was Case study evaluation of two patients with methamphetamine addiction who are in the initiation phase of cancer therapy, and discussion of complications related to their care due to methamphetamine use. Evaluation of available community resources also performed, to demonstrate the scarcity of care options available for this population. Interventions were to evaluate patient compliance with methamphetamine cessation, discuss supportive or palliative care options when patients are unable to cease methamphetamine use. Two patients who initiated treatment for cancer in a central Texas community-based medical/radiation

oncology clinic are discussed and evaluated regarding treatment barriers. During early stages of treatment, methamphetamine use caused procedures essential to treatment to be cancelled, causing the patients' treatments to be terminated before reaching level of benefit. Pre-treatment screening for methamphetamine use, combined with physician-patient-supportive oncology team discussions regarding the limitations of treatment while using methamphetamines can help improve stewardship of resources used for patients who are likely to be unable to complete treatment due to medical complications of methamphetamine use. If unable to reduce or stop methamphetamine use during necessary time periods during treatment, patients may benefit from referral to non-curative care services, which may have less-stringent requirements regarding methamphetamine usage. Methamphetamine screening recommended for patients with known methamphetamine use, as well as frank discussions with physician for all patients at initial visit regarding treatment limitations due to use of specific metabolism-altering recreational substances, as well as alternative options for care.

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### **AMBULATORY TRANSFUSION SERVICES: A REDESIGNED ORIENTATION**

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**Category:** Professional Development

Ambulatory Transfusion Services (ATS) provides a wide variety of services including blood product transfusion and apheresis procedures. Historically, the orientation period has been six months regardless of nursing skills or experiences. Since becoming a National Cancer Institute (NCI) -designated cancer center and receiving our Foundation for the Accreditation of Cellular Therapy (FACT) for both allogeneic and autologous transplants, the unit has experienced rapid growth with an increase in the number of apheresis cases performed on a daily basis. This has created an opportunity to redesign the current orientation process to be individualized and meet the learning needs of orientees who have diverse clinical backgrounds and varying levels of experience. An orientation package

was created, which includes a description of the unit, required daily safety checks, required documentation, contact information for providers and leadership, a self-assessment tool, listing of pertinent standard operating procedures (SOPs) and a checklist that would be utilized to monitor the orientee's progress. The self-assessment incorporates knowledge and skills needed to best care for this patient population. It will be completed by the orientee at two time points: first day on the unit and the final week of orientation. This self-assessment will help the preceptor focus on the individual's educational needs. A checklist of the most pertinent SOPs was created to ensure essential documents are reviewed. This checklist is monitored by the preceptor weekly. Shortly after the orientation package development, ATS hired two RNs. The new process was implemented with the new hires. The self-assessment tool assisted the preceptor in identifying areas requiring reinforcement, therefore providing a more focused orientation. Individualizing the training during orientation made the process more efficient. Additionally, it gave the new RNs the opportunity to focus on areas of need. All required competencies necessary for caring for this patient population were completed. Evaluation will be focused on outcomes for newly hired nurses, the usefulness of the self-assessment, and feedback from the orientee and preceptor. This orientation tool will empower preceptors to continue to provide an exemplary and expedited orientation to ATS.

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#### **CARES: COMFORT AND RELIEF: END OF LIFE SUPPORT**

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[Category: End of Life](#)

As patients with palliative care needs approach the end of life, it is our shared goal to maximize comfort and meaningful interactions with both family and friends. Traditionally medications are utilized to reach this goal, however often also inhibit it. Therefore, it is crucial in this population to maximize non-drug therapies for the management of pain and other symptoms, as well as attend to the needs of family, friends and caregivers. In 2016, there were 635 patients who ceased to breathe with a comfort-measures only (CMO) status at our institution and we have seen this number continue to rise related to the growth of our cancer program and the ever increasing acuity of

our oncology patients. The purpose of this program is to provide comfort and support to the family and maximize meaningful interactions with their loved ones during their hospital stay. Such programs in the literature have been shown to improve the families'/ friends'/caregivers' hospital experience and reduce complicated grief. The success of this program has led to an expansion of our comfort carts - from two carts for the hospital to six as well as the addition of electronic order to streamline the process for the medical teams, nursing, and our dietary department. As a patient is transitioned to CMO, a cart equipped with a coffee, drinks, snacks, etc. is placed in front of a patient's room so the family does not feel pressured to leave the room for respite. Literature and materials about the dying process, grief, and coping are also supplied to the family. Qualitative feedback from families and nursing show that the comfort cart plays an important role in caring for a patient who is transitioned to CMO. Nursing staff feel empowered that they are able to provide better care to the patient and family knowing that the needs of the family are being taken care of by the hospital. Families overwhelmingly appreciate the comfort cart and the relief of not having to go far for refreshments during this difficult time. This project is an essential undertaking in our quest to improve our palliative care discussions and deescalation of care in the hospital. It is a simple and effective way to improve the hospital experience for our patients and their families.

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#### **PRECEPTOR PATHWAY THE BONE MARROW TRANSPLANT WAY**

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[Category: Oncology Nursing Practice](#)

Nurse orientation programs vary widely within Memorial Sloan Kettering Cancer Center (MSKCC) among units and preceptors. The Bone Marrow Transplant (BMT) patient population is complex, requiring a specialized and multidisciplinary approach. In reviewing the literature, there was a lack of evidence for a formalized orientation pathway specific to the adult BMT patient population. However, there is evidence to support a structured orientation pathway when onboarding new nurses. Given the recent growth of the adult inpatient BMT unit at MSKCC and a continuing

need to hire registered nurses, there was a need to create a structured orientation pathway specific for the BMT patient population. In collaboration with nursing education, nursing leadership, and senior BMT nursing staff, a structured preceptor pathway was formalized. The objective of the preceptor pathway is to foster the education and clinical practice of inpatient adult BMT nurses and to instill a culture of shared responsibility and accountability. Our unit-specific preceptor pathway is a tool that is tailored monthly to include specific assignments for the preceptee to build the foundations of their nursing practice and evidence-based education. During implementation of the preceptor pathway, pre and post surveys that were modeled after the Vizient/AACN Nurse Residency Program Progression Survey, were given to preceptees. These surveys measured several qualitative factors including: confidence in prioritizing tasks, anxiety levels, and feelings of preparedness to complete responsibilities of the job. Since its implementation in February 2019, a total of 4 preceptees have completed the preceptor pathway. Data from the surveys have shown preceptees have increased confidence in prioritizing tasks, decreased anxiety levels, and increased preparedness to complete job responsibilities. Additionally, they feel valued among their colleagues and have positive feelings of job satisfaction. The integration of a unit-based preceptor pathway is beneficial to the preceptee in building their clinical skills and confidence in caring for an acute patient population. Furthermore, it allows the preceptor to tailor the progression of the nurse's orientation in an organized and comprehensive manner. The preceptor pathway is a versatile tool that can be adapted to any patient population or nursing unit. Fostering a positive learning environment and appropriate progression of assignments throughout the orientation leads to the nurse feeling valued, proficient, and can further contribute to increased nurse retention and career satisfaction.

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### **AMBULATORY ONCOLOGY INFUSION ACUITY TOOL**

**Katina Turner, BSN, RN, OCN<sup>®</sup>, Duke Health System, Durham, NC; Marcella Teague, RN, OCN<sup>®</sup>, Duke Health System, Mebane, NC; Kerri Dalton, MSN, RN, OCN<sup>®</sup>, Duke Health System, Durham, NC; Mary Ann Plambeck, MSN, RN, OCN<sup>®</sup>, Duke Health System, Hillsborough, NC**

**Category: Oncology Nursing Practice**

Many acuity tools exist for inpatient settings. However, there are very few for ambulatory oncology

infusion centers. Currently, nurse assignments in the Duke Cancer Center Oncology Treatment Center are based on the number of patients each nurse cares for at a time and within a shift. This approach to daily assignments does not take into consideration the acuity of a patient. Without acuity taken into account, this leads to dissatisfaction among nursing staff and can lead to an unbalanced nurse-patient assignment which, in turn, ultimately can affect patient care provided. As a result, we are working on an acuity tool for our outpatient infusion center. Data has been obtained from a pre-survey that was sent to staff to discover how nurses feel about the method in which patient assignments are decided. The survey also obtained information from staff on how they would feel about an acuity tool being developed. After we begin the implementation of the acuity tool, we will send out a post-survey to staff to identify the success of an acuity tool for patient care and staff satisfaction. We are hoping it will also help nurse influenced decision-making within our unit and eliminate barriers to adaptability and teamwork that are critical to good patient care.

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### **TIME TO PUT IT OUT: NURSE-FACILITATED TOBACCO TREATMENT PROGRAM IN A COMPREHENSIVE CANCER CENTER**

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**Category: Treatment Modalities**

The 2016 NCCN smoking cessation guideline recommends a combination of sustained pharmacotherapy and behavior therapy for smoking cessation in patients with cancer. Many oncologists and nurses are aware of the effects of tobacco on their patients, but do not feel adequately prepared to provide evidence-based tobacco treatment in the clinic. We found that in our own NCI Designated Cancer Center, most patients reported having been asked about smoking (73%), but only 28% were advised to quit and only 10% received any assistance with tobacco cessation. Nursing staff identified several barriers to delivery of cessation counseling, including patient psychological factors (e.g., stress related to cancer diagnosis and treatment), insufficient time for cessation counseling during the clinic visit, lack of insurance coverage for tobacco

treatments, and limited duration of follow-up. The purpose of this project was to implement a tobacco treatment program in our cancer center. This program enables nursing staff to easily refer current tobacco users to a co-located Tobacco Treatment Specialist (TTS) for assistance in quitting or reducing tobacco intake. Within our electronic health record (EHR), we developed a Best Practice Advisory (BPA) triggered by a positive screen for tobacco use. Our protocol allowed registered nurses or medical assistants to order a TTS consult without a clinician's co-signature for those patients who screened positive for tobacco use and were willing to take part in the program (opt-in approach). The TTS meets with referred patients at the time of a clinic appointment whenever possible and provides up to 6 follow-up counseling sessions by phone. Program milestones were: In March 2019, full-time TTS hired. In April 2019, nursing staff received an in-service on the Ask-Advise-Refer model of brief cessation counseling and started referring interested patients to the TTS. In May 2019, BPA activated in EHR. Pre-intervention (Jan–March 2019) (N=316): Smoking cessation counseling 7%. Pharmacotherapy prescribed, 14%. Any tobacco treatment 16%. Post intervention (May–Aug. 2019) (N=429): Smoking cessation counseling, 16%. Pharmacotherapy prescribed, 24%. Any tobacco treatment 30%. As of Sept. 2019, 18 patients completed the tobacco program, of whom 7 reported tobacco-free status. Most cancer patients who smoke do not receive tobacco treatment, even those who report readiness to quit. This project demonstrates the feasibility of integrating tobacco treatment into the workflow of cancer care without adding undue burden to clinic staff.

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### **SIMPLY SALINE FOR CENTRAL VENOUS CATHETER FLUSH/LOCK**

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Category: Oncology Nursing Practice

Central Venous Catheter (CVC) patency is critical for oncology patients. Care and maintenance of CVC is under the scope of oncology nursing practice. Heparin has traditionally been used as the flush/lock solution and is recommended by some manufacturers. Yet, evidence fails to demonstrate the superiority

of heparin over saline solution for maintaining CVC patency. Increasing reports of saline as the standard flush/lock solution for CVC in the literature, guidelines, variability in practice, reports of policy non-compliance, and patient confusion led front-line nurses to question the use of heparin as the flush/lock solution for CVC at this academic medical center. The purpose was to evaluate: Is saline, when compared to heparin for CVC intermittent flush/lock solution, effective for prevention of occlusion in adult populations? Inclusions were peripherally inserted central catheters (PICC), Ports, Hickmans and CVC (single, double, triple). Arterial lines and dialysis catheters were excluded. The Iowa Model Revised- Evidence-Based Practice to Promote Excellence in Health Care® was used to guide this EBP process. A systematic search of CINAHL and PubMed databases yielded eighteen articles for review. Overall, evidence failed to demonstrate superiority of heparin or saline for CVC flush/lock patency. Lack of definitive research led the team to explore national practice standards, manufacturer recommendations and scientific principles. Based on all available evidence, the recommendation was to change practice to saline as the standard solution for adult CVC flush/lock and use a push-pause technique. Key to saline implementation was de-implementation of heparin including changes to a protocol and discontinuing heparin in over 1,200 order sets. Baseline data assessing staff knowledge, attitudes and behaviors were used with a phased EBP implementation model to guide a Precision Implementation Approach™. An education tool “Simply Saline” was developed to focus on knowledge deficits and behavioral flush/lock technique. Implementation “go live” was in June 2019. The documentation of tissues plasminogen activator (tPA) was chosen as the primary outcome measure. To date, tPA use has remained constant. No patient safety reports related to the practice change have been identified. Implementation of saline flush and de-implementation of heparin flush for CVC can be done by using a systematic process and data to drive the practice change. Eliminating heparin flush for CVC decreases the risks associated with heparin in our oncology patients.

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### **THE VALUE IN DRAWING A PRE-OPERATIVE HEMOGLOBIN A1C IN NON-DIABETIC ADULT PATIENTS UNDERGOING SURGERY**

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Category: Coordination of Care

Surgery is a common treatment for cancer. Surgical Site Infections (SSIs) are among the most common healthcare acquired infections. SSIs occur due to a variety of physiologic processes, most commonly due to ineffective wound healing. Wound healing is affected by stress-induced hyperglycemia (SHG), which is a transient elevation in blood glucose brought on by illness or stress to the body (including surgery). Higher preoperative hemoglobin A1c (HbA1c) may be a predictor of who will experience SHG. Patients with diabetes mellitus have a known increased risk of SSI due to the effects of hyperglycemia on wound healing. While both institutional and national guidelines exist for directing providers on what preoperative laboratory tests to draw in patients with diabetes mellitus, there are no current practice guidelines on preoperative glucose monitoring laboratory tests in non-diabetic adult oncology patients. The purpose of this project was to provide information suggesting that guidelines for preoperative HbA1c screening in non-diabetic oncology adult patients undergoing surgery should be created to identify patients at risk of developing SSIs. Reviewed the literature on preoperative HbA1c levels in non-diabetic adult oncology patients undergoing surgery in online databases of PubMed, CINAHL, and Cochrane. There are no randomized controlled trials (RCTs) examining preoperative HbA1c in non-diabetic oncology patients undergoing surgery and postoperative SSIs. However, evidence exists linking perioperative blood glucose optimization to better postsurgical outcomes. It is hypothesized that preoperative HbA1c in non-diabetic adult oncology patients undergoing surgery may predict those at an increased risk for SSI. Many surgeries are not elective in the adult oncology population, so the discovery of an elevated preoperative HbA1c presents a challenge in a non-diabetic patient who does not have 12 weeks to optimize their blood glucose before surgery. Discovery of elevated preoperative HbA1c may serve as an alert that the patient is at high risk for developing an SSI. The patient's perioperative blood glucose levels could then be monitored more closely, hopefully decreasing the risk of developing a SSI. More research on this topic is warranted and a pilot study is currently being explored at this Midwestern Comprehensive Cancer Center.

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### EXPANDING PATIENT CARE: INCORPORATION OF A RADIOPHARMACEUTICAL PROGRAM IN

### THE OUTPATIENT CLINIC SETTING AND THE NURSING ROLE IN PATIENT SAFETY

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Category: Treatment Modalities

The use of radiopharmaceuticals in oncology care provides additional treatments options for patients and can be used to treat many cancer types. Radiopharmaceutical treatments are readily available in the hospital but are infrequently administered in the outpatient clinical setting. The benefits of incorporating this level of care into community-based oncology clinics include ease of access, continuity of care, and expansion of treatment options for patients. Specific barriers to radiopharmaceutical administration in the clinic include obtaining state licensure, maintenance and proper storage of materials, coordination of patient's schedule and additional staff training to address patient, and nursing safety concerns. Tennessee Oncology has successfully incorporated radiopharmaceutical administration into clinical practice expanding care delivery to oncology patients. The multi-step process commenced with preparations inside the clinic to meet licensure requirements while working alongside a radiation safety officer. Once licensed, an extensive amount of training was conducted for the nursing staff to ensure the entire team was confident in their ability to care for patients receiving this type of treatment. Since the initiation of the project, we have incorporated the use of two radiopharmaceutical medications and are working towards licensure for a third treatment option. Continued growth of the radiopharmaceutical program will not only further expand treatment options for oncology patients but also strengthen the knowledge and abilities of oncology nurses in the outpatient setting.

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### IT'S JUST A PILL: IMPLEMENTATION OF AN ORAL CHEMOTHERAPY COORDINATOR

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Category: Patient Education and Safety

Oral chemotherapy agents have been used to treat a variety of malignancies and appear to be the direction of the future with 25–40% of the drugs in the pharmaceutical pipelines being oral. Our cancer clinic discovered some of our patients were

“falling through the cracks” and not receiving optimal education or care. Patients administering oral chemotherapy at home are an “at risk” group of patients due to lack of medication adherence and unreported side effects which can compromise patient safety as well as treatment efficacy. The purpose of the project was to implement the role of an oral chemotherapy coordinator (OCC) to reduce delays in care, provide consistent education and follow up for these patients. An OCC was approved and brought all oral chemotherapy under one umbrella. The OCC verifies insurance, submits prescription to specialty pharmacy, assists in obtaining prior authorizations and copay assistance, ensures delivery, education and follow up. They are also the point person for specialty pharmacies. With nine oncologists in our practice we gradually added 1–2 providers at a time until all on board. Since February 2019, the OCC has added 143 new patients to those already on oral therapy, identified other processes needing improvement and trends in significant symptoms that providers as a whole were not aware of. This role is resource intense and we have requested a second position. Our oral chemotherapy patients are receiving more timely care through standardization of processes. New processes and challenges have been identified for future improvements. An OCC is a necessary role that can be reproduced in any practice.

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### THE TRANSFUSION SPECIALIST REGISTERED NURSE AND ADVANCED PRACTICE PROVIDER ROLES

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Category: Oncology Nursing Practice

Transfusion of blood products is the most common inpatient procedure in the United States; however, education specific to blood product administration is limited among nurses and physicians. The creation of Transfusion Safety Officer (TSO) roles at many hospitals highlights the awareness of a need for a transfusion specialist. No formal program exists to certify registered nurses (RNs) and advanced practice providers (APPs) as transfusion specialists. A Magnet® designated, NCI comprehensive cancer

center created a 24/7 centralized clinical service staffed by RNs and APPs to monitor and respond to transfusion reactions, patient blood management, and blood product concerns. The creation of this Hemovigilance Unit (HVU) identified the need to develop education and practice scope for RNs and APPs as transfusion specialist. The curriculum, competency assessments, and job descriptions used in the HVU could support development of similar roles in other institutions. The Transfusion Specialist APPs and RNs improve safety and quality of care by identifying and managing patients at increased risk of a suspected transfusion reaction. Furthermore, specialists communicate with clinicians about appropriate use of blood and bridge gaps in expertise between nursing and transfusion medicine. The curriculum developed through a collaboration with transfusion medicine faculty, nursing, and nursing education. The educational goal is to cover a vast curriculum of topics centering on blood product transfusions. Topics include blood product manufacturing, regulatory oversight of transfusions, clinical management of patients receiving transfusions, appropriate use of blood products, adverse reactions to transfusions, immunohematology laboratory testing, quality management and communication skills. Educational efforts include a combination of required readings, lectures, roundtable discussion, online exercises, and patient proctoring. Educators overseeing RNs and APPs developed specific competency assessment forms to evaluate performance and understanding of transfusion. Transfusion Specialists improve patient safety and quality by identifying patients at risk and by educating clinicians of appropriate management of patients receiving transfusion through peer-to-peer discussions. The Hemovigilance APPs and RNs increase compliance with institutional and national guidelines for blood product administration. Additionally, the roles provide 24/7 access to specialists for blood product administration support and patient education. Finally, the innovative transfusion specialists enhance the identification and management of transfusion reactions while facilitating communication between lab medicine and clinicians.

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### ASSESSMENT OF THE KNOWLEDGE, ATTITUDE, PRACTICES, PERCEIVED BARRIERS AND SUPPORT REGARDING PALLIATIVE AND END OF LIFE CARE AMONG

## CRITICAL CARE NURSES AT TERTIARY CARE HOSPITAL, NEW DELHI, INDIA

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Category: End of Life

Nurses form the most valuable palliative care team members, a critical factor influencing a successful delivery of palliative health care is nurses' knowledge, attitudes, beliefs and experiences, which determine their procedure as well as behavior during care of patients. Present study was conducted with aim to assess knowledge, attitude, practices, perceived barriers and support regarding palliative and end of life care. A cross sectional study was conducted among 386 ICU nurses of tertiary care hospital, New Delhi, selected through convenient sampling technique. Data was collected during August- December '2018, using standardized tool for attitude and pre tested self structured tools for other variables, analyzed using SPSS version 24. Findings showed that mean knowledge, attitude & practice scores of ICU nurses were 9.83±2.50 out of 20, 104.91±13.04 out of 150, 17.61±4.36 out of 27 respectively. Only 7% nurses had good knowledge, 36.5% had satisfactory practice whereas 88.1% had favorable attitude towards palliative & end of life care. The mean knowledge score of nurses was found to be significantly higher among female nurses ( $p=.016$ ) and those nurses who had additional training pertaining to palliative and end of life care ( $p=.001$ ). The mean practice score was significantly higher among Msc nurses as compared to nurses with lower qualification ( $p=.02$ ). There was significantly higher mean attitude score among nurses of lower age group ( $p=.038$ ), who had additional training pertaining to this issue ( $p=.02$ ), Msc nursing as a qualification ( $p=.002$ ), more than 2 years of experience ( $p=.04$ ) & nurses working in Neurology ICU ( $p=.02$ ). Age of nurses was found to be negatively correlated to their attitude ( $p=.01$ ) whereas nurse's attitude was positively correlated to the practice ( $p=.001$ ). Knowledge and practices of nurses were also positively correlated ( $p=.006$ ). There is a considerable gap between nurse's knowledge and practices, inspite of having good attitude regarding palliative and end of life care. Due attention should be given to make nurses more responsive to palliative and end of life care needs of patients. Perceived barriers reported by ICU nurses should be addressed to move towards holistic health approach.

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## SEXUAL HEALTH CONSIDERATIONS FOR THE LGBTQIA SURVIVOR

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Category: Oncology Nursing Practice

The LGBTQIA community have unique needs related to their sexual health when receiving a diagnosis of cancer and through survivorship. Oncology nurses should be aware of the special considerations to provide holistic care. As this population is especially vulnerable and often discriminated against in the health care setting. There is a dearth of literature and practice recommendations for care providers in addressing the sexual health needs of this population. It is vital for oncology nurses to be mindful of the needs when caring for this population. The purpose of this project would be to educate oncology nurses on the best practices on addressing the sexual health needs of the LGBTQIA community, from both physical and psychosocial aspects. A review of literature was performed and consultation with a clinical psychologist, who specializes in the sexual health of oncology patients was garnered. In the practice of a high volume outpatient oncology clinic, the attention to the sexual health of the cisgender patients is lacking. This indicates that holistic care is often excluded from the LGBTQIA patient populations. This review will reveal the best practices for sexual health discussions and supportive measures. One intervention that nurses can use is the PLISSIT method which is used for the general population, nurses can become more comfortable having discussions with patients about their sexual health concerns using this communication technique. With recommendations from the literature and clinical experts, we could help facilitate educating oncology nurses on best practices for caring for the LGBTQIA patient. There are close to 1 million LGBTQIA people in the United States that are cancer survivors. Literature reveals that this population often experiences stigma and subject to simple oversights made by well-meaning providers who may lack understanding of their needs. Interactions with insensitive providers may cause the LGBTQIA patient to feel like their needs are not important, leading to lack of trust of the system and may not comply with follow-up. Sexual health is a component of well-being that oncology nurses can help provide by establishing a trusting relationship through staying informed on their unique needs. More research is needed to better understand the sexual health needs of this patient population.



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### **USING AROMATHERAPY TO IMPROVE THE PATIENT EXPERIENCE BY MANAGING SYMPTOMS IN THE OUTPATIENT SETTING**

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Category: Symptom Management and Palliative Care

When patients enter an infusion unit for cancer treatment, they are confronted by a myriad of difficult factors, including but not limited to treatment-related side effects, disease-specific symptoms, prognosis fears, and other sources of anxiety and discomfort. The culmination of these factors can understandably lead to symptoms requiring further treatment, many of which are only partially alleviated by conventional medical interventions. 2 outpatient infusion units at City of Hope started the Aromatherapy Project in January 2019 as a way to supplement established medical interventions. For the Aromatherapy Project, an infusion-based team aimed to improve patient experiences by alleviating patient discomfort. The team decided to focus on four common symptoms: nausea, anxiety, tension and headache. The Aromatherapy Project used a small team of nurses to educate staff on how to deliver essential oil aromatherapy to infusion patients. In the initial phase of the project, four oils were utilized: Lavender, Peppermint, Grounding Blend, and Invigorating Citrus Blend. RNs provided patients with a labeled vial containing a cotton ball with 2–3 drops of an essential oil chosen based upon the patient's presenting symptoms and/or preferences. The patient was instructed to hold the vial below their nose while taking three deep breaths. Within the confines of this project, no other methods of oil delivery were implemented. Participating RNs completed a short survey detailing the presenting symptom, the oil used, and the patient-reported outcome. According to RN survey results, the majority of patients reported partial or complete alleviation of symptoms after aromatherapy. The most frequently used oils were Lavender for anxiety and Peppermint for nausea. The combined success rate for aromatherapy alleviating the reported symptom was 75%. The Aromatherapy Project makes essential oils available to a growing number of patients on a daily basis. Verbal testimonies and survey data suggest that the

Aromatherapy Project has had a positive and empowering effect on patient experiences. In the clinical setting, it is important to search for safe, effective and creative solutions to help alleviate common symptoms that patients experience. As the Aromatherapy Project continues to develop in patient awareness and provider involvement, it has grown in proliferation and scope and is received enthusiastically by patients and staff.

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### **COLOR-CODED NEEDLELESS CONNECTORS LEAD TO INCREASED NEEDLELESS CONNECTOR CHANGE—COMPLIANCE ON A BONE MARROW TRANSPLANT UNIT**

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Category: Oncology Nursing Practice

Central lines are a major risk factor for the development of bloodstream infections in immunocompromised patients. Although needleless connectors serve as gatekeepers to prevent bacterial entry into the bloodstream, studies show they are potential sites for microbial contamination. According to the Infusion Nurses Society, needleless connectors should be changed no more frequently than every 96 hours. Inconsistencies in the electronic medical record (EMR) documentation of this routine change prompted nurses on a Bone Marrow Transplant Unit (BMT) to question adherence to this standard of care. These inconsistencies were compounded with the fact that house-wide needleless connectors were clear with no distinguishing features forcing nurses to rely on EMR documentation alone to evaluate change-compliance. BMT's Unit-Based Council looked into this issue and discovered a product manufactured by ICU Medical that contains a solid color ring around the tip of the MicroClave® Clear. These nurses investigated the use of color-ringed MicroClave Clear needleless connectors to demonstrate visual change-compliance. Needleless connectors were changed along with intravenous tubing every Monday and Thursday. In January of 2019, nursing staff voted to use yellow color-ringed needleless connectors for Monday–Wednesday and purple color-ringed needleless connectors for Thursday–Sunday. The roll-out of the color-ringed needleless connectors began in February. After several months of using the product, weekly auditing was conducted every Monday and Thursday through both visual checks

and EMR documentation. This audit ran for approximately 6 weeks and found that overall visual routine change-compliance was 98.3% on Mondays and 98.4% on Thursdays. On average, compliance with documentation throughout the six-week study was 68.1% on Mondays and 64.7% on Thursdays. These values demonstrate that visual compliance of color-ringed needleless connectors is effective but there is room for improvement for documentation. This change in practice is vital in the prevention of central-line associated bloodstream infections (CLABSIs). This serves as the first study demonstrating the use of color-ringed needleless connectors. The current lack of comparative research demonstrating needleless connector change-compliance poses both a challenge and direction for upcoming research. While the short timeframe of this study limits its scope, strong preliminary findings on visual inspection show promise for future studies.

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#### **DEVELOPING A LUTATHERA TREATMENT PROGRAM IN AN AMBULATORY ONCOLOGY DEPARTMENT**

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**Category: Oncology Nursing Practice**

Lutetium Lu 177 Dotatate (Lutathera) was approved in 2017 to treat adults with somatostatin positive gastroenteropancreatic neuroendocrine tumors (GEP-NETS). Prior to approval patients had limited treatment options, relying on Octreotide or Sandostatin LAR for symptom management. Treatment with Lu-Dotatate resulted in increased progression free survival and a higher response rate than high dose Octreotide LAR in this patient population, allowing systemic radiotherapy to be delivered directly to tumor cells. The purpose of this program was to design and implement a Lutathera treatment program in an ambulatory oncology department. Components to training included Lutathera overview, pretreatment work up, side effects, room preparation, treatment plan review, patient teaching, role of nuclear medicine and role of nursing. Program development involved a collaborative team including Nursing, Physician, Pharmacy, Nuclear Medicine, Radiation Safety and Administrative leadership across inpatient, ambulatory, oncology and emergency services. The process began by meeting with clinical and

scientific staff from AAA for an overview of patient treatment criteria, patient flow, management and medication administration during clinical trials. Areas within the hospital were identified in which this patient population would interact with and were included leadership in planning. For example, inpatient nursing was included should patients require an overnight admission. Nursing education included an overview of disease pathology, specifics of medication administration, symptom management, a review of carcinoid crisis, treatment procedures and basic radiation safety teaching. Protocols were developed in collaboration with leadership from the emergency department (ED) to prepare for rapid patient transport in the event of carcinoid crisis or an ED visit after treatment. Approximately one year following implementation, in total, 15 nurses were trained to care for patients receiving Lu-Dotatate. At the time of abstract submission, 19 individual patients have been treated with 53 total treatments administered. The program includes ongoing weekly collaborative calls to ensure streamlined care. Interdisciplinary collaboration and planning have allowed for a successful treatment program in an ambulatory care department. As treatment options become more sophisticated and complex, many program and treatments are being evaluated as to their appropriateness and safety to be administered in the ambulatory setting. Ensuring proper training and preparation can facilitate successful implementation of programs such as Lutathera in an ambulatory setting.

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#### **NURSING CONSIDERATIONS AND PATIENT SAFETY OF TRANSPERINEAL PROSTATE BIOPSY IN A UROLOGY CLINIC**

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**Category: Oncology Nursing Practice**

Prostate cancer is the second leading cancer in men in the United States. Prostate biopsy is the gold standard to diagnose prostate cancer and is typically performed in the outpatient setting. Nurses heavily support this clinical procedure by managing procedure setup, assisting during the procedure and providing

emotional support and education to the patient. Due to the nature of the transrectal approach, sepsis is a common complication. This approach has a reported sepsis rate of 1–17.5%. Obtaining the tissue sample through the perineum, also known as a transperineal prostate biopsy (TPPB), has been successfully transitioned to the outpatient setting, more commonly performed in Europe. In the United States, this approach is usually performed in the OR. TPPB result in enhanced sampling and more accurate diagnosis of the disease as well as decreased sepsis risk. This procedure was recently implemented in a high volume outpatient urology clinic, which performs approximately 50 prostate biopsies a month. This abstract will share the logistics and nursing implications on transitioning this procedure into an outpatient setting. An interdisciplinary team explored the safety and feasibility of implementing the TPPB procedure to high risk patients. Literature was reviewed to understand the safety, procedural steps, and clinical considerations of converting this procedure from the operating room to the outpatient setting. In-services were developed and presented to help staff understand the significance of the practice change, use of new equipment and operational feasibility of administering this procedure. A high risk immunocompromised patient was selected to pilot this procedure in the urology clinic. The patient underwent the biopsy without difficulty and showed no signs of sepsis post procedure. The patient's experience was comparable to the typical transrectal approach, although pain management was noted to be an opportunity for improvement. Several more patients have been scheduled to undergo the transperineal approach due to high risk factors for sepsis. Outcomes will be reported at a later date. The implications for oncology nurses include need for education related to equipment, procedure setup, and support for physician and patient. Nurses are pivotal in supporting patients through this procedure due to its significance in accurately diagnosing cancer. The experience from this clinic can be shared with other urology clinics considering adopting this procedure.

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### **POWER OF THE CHAIR-SIDE NURSE: IDEA TO IRB**

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**Category: Professional Development**

Research is a professional activity that is dependent on time and resources as capacity allows. Because of these constraints, nursing research is considered above and beyond a typical nurse's role. Although difficult, participating in research can provide opportunities for professional growth, confidence, networking, and education. In 2016, four infusion clinic nurses were presented with the opportunity to develop and participate in a chair-side nursing supportive care research protocol. The professional development opportunities this process afforded increased the nurses' sense of purpose and passion for the project. The purpose of this project was to share the experience of chair-side nurses developing an idea into an Institutional Review Board (IRB) approved research trial. A methodical approach was used in the process of transitioning an idea into a supportive care research trial. Each element built upon the previous one: idea, literature search, critical appraisal of the evidence, journal club, traveling journal club, public presentations, grant application, IRB proposal, and active trial enrollment. Four nurses started on this approach to developing a research project. One nurse determined that this was not feasible for her and was quickly replaced with another nurse. The literature review developed into a 2-session journal club that was presented for 2 different infusion units. Presentations of the project were provided at 4 different staff meetings, 1 shared governance council, and 1 patient symposium. One nurse advanced to a Nurse Educator role and 2 other nurses attained clinical ladder advancement. The group developed a computer-based learning module for the healthcare system, was awarded a local research grant, and successfully navigated the Clinical Science Review Committee and the Cancer Institutional Review Board. The supportive care trial is now actively enrolling participants. The project increased nursing knowledge of research processes and promoted their professional development. The chair-side nurses had unwavering engagement and involvement in the study and provided leadership on the trial unit. They became experts in a new field of patient care, and gained confidence in their new knowledge.

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### **A TEAM EFFORT: THE MULTIDISCIPLINARY APPROACH TO INITIATING AND MANAGING THE CONTINUOUS OPIOID INFUSIONS AT THE END OF LIFE**

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*Category: End of Life*

Care of an oncology patient at the end of life requires a complex skill set that must be well understood by both physician and nursing care teams. We identified that a lack of standardized guidelines and an opportunity for improved staff education offered a chance for our organization to enhance the care provided to patients. Our primary focus was the care of patients on continuous opioid infusions (COIs). Previously, the initiation process and continued management of these interventions was complicated and allowed potential room for error, making it difficult for an inexperienced physician to confidently manage orders. The variations in interventions and physician recommendations created an uncertainty in nursing practice, specifically with dosing, rate adjustments, and maintenance of COIs to properly manage end of life symptoms. To improve our practice surrounding the initiation and management of COIs, a multidisciplinary team was brought together that included representatives from pharmacy, nursing, administration, education, palliative care, and IT specialists. First, a “Continuous Opioid Decision Making Tree” was created with the intention of guiding providers through a series of steps which would help determine the most appropriate symptom management approach for their patient. The idea being that not all patients at end of life required a COI for effective symptom management, and the decision making tree helped provide alternative options. While providers were the intended audience, this tree also provided nursing with an improved understanding of multiple symptom management approaches. Finally, a “Continuous Opioid Algorithm” was designed as a reference to assist in managing the complexities of a titratable opioid infusion. The algorithm contained specific care recommendations and various clinical pathways based on patient responses to opioid dosing. These references were used as teaching tools and distributed to inpatient

nursing staff during unit based presentations. The presentations were collaboratively taught by our palliative team, pharmacy, and nursing with the intention of setting an example of the importance of a team approach to the successful management of end of life patients. The outcomes of this work have been the empowerment of nurses, enhanced knowledge of physicians, and improved patient care and safety. Future plans include expanding the project beyond the oncology units and building the references into the EPIC order set.

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### **UTILIZING ROY’S ADAPTATION MODEL OF NURSING IN THE CARE FOR THYROID CANCER PATIENTS—CASE REPORT**

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*Category: End of Life*

According to 2014 statistics, every 181.6 minutes a new patient is diagnosed with thyroid cancer in Taiwan. Due to advances in medical technology, the average 10-year survival rate for thyroid cancer patients is around 80% to 90%. Yet on the other hand, anaplastic thyroid cancer patients only have a 10-year survival rate of 60% to 70%. It is important to assist patients diagnosed with anaplastic thyroid cancer to accept the fact that there is a possibility of death and to live life to its fullest. Using Roy’s Adaptation Model of Nursing we discover the different stimuli that a patient faces and with feedback from the patient regarding their physiologic functions, self-concept, role function, and interdependence we can adjust individual cases and better prepare patients to be self-balancing and capable of adjusting to external stimuli. In the end, after a multi-level assessment, understanding each aspect of the case, and coupled with a cross-team sharing of resources to solve the patient’s dilemma, the patient chose to return home for hospice care. In later follow-ups, the son of the patient expressed that everything was fine at home, the patient was able to happily interact with family members and had no regrets of leaving this world. With Roy’s Adaptation Model, nursing staff are able to assess the actual and potential problems that a patient may show. Through critical thinking and providing care tailored to the patient, nurses can gain a sense of achievement and achieve holistic health care.

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### **SUICIDE SCREENING IN THE PEDIATRIC AMBULATORY ONCOLOGY CENTER**

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**Category:** Psychosocial Dimensions of Care

Suicide is the second leading cause of death for youth ages 10–24. Most patients who commit suicide visit a healthcare provider months before their demise. Patients with a chronic medical diagnosis are at increased risk for depression and suicide; unfortunately, less than 20 percent of patients connect with a mental health specialist. Research suggests that patients of all ages with a cancer diagnosis have nearly twice the incidence of suicide. Within the ambulatory oncology center, suicide screenings were not being complete, nor was there a standardized approach if a patient reported suicidal ideation. By using an integrated care model of partnership between patients, families, behavioral health, and medical health providers, we are able to identify those patients and families that need a mental health intervention. The purpose was to implement an effective and efficient validated suicide screening tool, within the pediatric ambulatory oncology setting. The goal was/is to increase access to emotional support services for patients and their families coping with a cancer diagnosis. Patients ages 9 and older are screened annually for suicide risk via a standard electronic medical record integrated protocol. The suicide screening tool used is a five question survey called the ASQ tool (Ask Suicide-Screening Questions Tool from the National Institute of Mental Health). Our primary aims were to increase suicide-screening rates from zero to 80 percent within six months of implementation and ensure a standardized response protocol with 100% reliability for all positive screens. Universal suicide screening is feasible, acceptable and critical to identify distress in pediatric oncology patients. To date over 600 patients have successfully been screened for suicide risk over the past 6 months. Of which, 13 patients (2%) screened positive, of those patients, 12 were non-acute and were provided connection to resources. 100% of positive screens received an immediate on-site safety assessment by social work or psychologist. Increase in behavioral health integration via the creation and successful implementation of an electronic medical record integrated workflow with Best Practice Advisory alerts to registered nurses and medical assistants, notification to doctors, and telecommunications call to social work/psychologist for immediate assessment.

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## MEASLES: WHEN AN ERADICATED DISEASE MAKES A COMEBACK

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**Category:** Screening, Early Detection, and Genetic Risk

In the United States, nearly 20 years ago, measles was deemed eradicated by the Center for Disease and Control (CDC). However, in end of 2018 and beginning 2019 the World Health Organization (WHO) reported that United States had the highest measles count in 25 years. Within months, a health crisis loomed as a measles outbreak was spreading in a densely populated area and accounted for more than half of all confirmed cases within the United States. Measles is extremely contagious and requires a high community level vaccination rate to prevent transmission. This is problematic and potentially deadly for oncology patients with a compromised immune system or those undergoing chemotherapy. A systematic effort was necessary to avoid further transmission and to protect those patients that were immunocompromised in the ambulatory oncology setting. The purpose of this project was to implement a robust protocol within the ambulatory oncology setting to combat the measles outbreak within a heavy populated urban area. Majority of the measles outbreaks were being reported in pocketed areas. As part of our organization's response to the outbreak, nursing had a role in identifying, screening, and educating at risk patients. In order to identify at risk patients, we utilized the electronic medical record to pull patients within these zip codes, which was vital to pre-screen patients before arriving to clinic (especially within the pediatric oncology patient population). While appointments were not cancelled, if symptoms were reported, staff were able to appropriately isolate those patients, preventing any further transmission. A measles screening form, consisting of seven questions, was used on all patients deemed at risk. Staff communication resources were created specifically related to the measles outbreak, as well as updates to the visitor policy for all patient care areas. While diseases such as measles have been eradicated in the United States due to vaccines, health care workers are left with the reality that a resurgence can occur at any time. It is vital that there is a standardized and active plan in place to avoid transmission

and spread of these diseases, especially among the vulnerable oncology population.

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### **COMPLETE PATHOLOGIC RESPONSE OF ESOPHAGEAL CANCER TO CRYOTHERAPY: A NURSING PERSPECTIVE**

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**Category: Symptom Management and Palliative Care**

Cryotherapy is an emerging ablative modality for endoscopic palliation of Esophageal Cancer. A total of 73 endoscopic spray cryotherapy using liquid nitrogen was performed on 19 patients from July 1st, 2018 to June 30th, 2019 as palliative treatment of esophageal dysphagia at our center. Three patients had complete pathologic response as documented by negative biopsy of the tumor site. We are presenting the results of these three patients and compared to expected results from other available treatments. Other data such as on their dysphagia score and quality of life through post-procedure calls made by the nurse. These patients were continuously assessed for their dysphagia symptoms such as ability to swallow without difficulty, time consumed to complete a meal, ability to swallow liquids without problems and improvement on overall quality of life. Intraoperative procedure results and visual documentation of before and after spray cryotherapy will be included.

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### **EXPANDING NURSE NAVIGATION IN RURAL CANCER CENTERS**

**Jaime Young, BSN, RN, OCN®, Gene Upshaw Memorial Tahoe Forest Cancer Center, Truckee, CA; Karen Aaron, BSN, RN, OCN®, BCNP-C, Gene Upshaw Memorial Tahoe Forest Cancer Center, Truckee, CA**  
**Category: Oncology Nursing Practice**

19.3% of the population of the United States live in rural areas. Rural residents have higher cancer mortality rates than urban residents, and have barriers to cancer care due the distance to the closest cancer treatment center. Our cancer center is located in a mountain town and has a large rural catchment area, with some patients traveling 3 hours to receive care. Rural patients have unique needs and the nurse navigator needs to be aware of and sensitive to these needs. The purpose of the navigation program is to be a resource for patients and providers. The nurse navigation program was recently expanded to provide support to patients undergoing cancer screenings and

cancer patients that are not seen by the cancer center. Navigators provide coordination of care, education, and support to patients and providers. The navigators provide services to all cancer types and are knowledgeable about hematology. The navigation program was expanded to include more outside patient and provider contact. The navigators call the patients to determine barriers they have to receiving care. The navigators called the outside physicians that refer patients to introduce themselves and the program. Providers were encouraged to give patients the nurse navigator phone number if they had any questions or concerns about their diagnosis. This expanded program has enabled patients to receive timely care after their diagnosis. Patients have relayed that they felt like a person, not a number, when talking to the navigators. Patients report feeling less anxious about their diagnosis and plan knowing they have one contact person for all their questions. An expanded nurse navigation program is important to a rural oncology program. The navigator is a first point of contact with the patients, and gives support through their whole journey. Navigator roles in rural areas include more long distance coordination with providers, and helps patients that are overwhelmed with the process. The nurse navigator role in a rural area can be expanded to include many activities, such as care coordination, education, and outside physician support. Rural nurse navigators are not new in oncology, but can be used in innovative ways to support patients that need help with the additional barriers that living in a rural area brings.

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### **SYMPTOM MANAGEMENT IN STEM CELL TRANSPLANT: EARLY RECOGNITION AND MANAGEMENT OF MUCOSITIS**

**Tyren Young, MSN, BSN, RN, National Institutes of Health, Bethesda, MD**

**Category: Symptom Management and Palliative Care**

Patients who receive high dose chemotherapy and/or radiation for Peripheral Blood Stem Cell Transplant (PBSCT) can exhibit severe mucositis. This can alter the patient's nutritional status and prolong the healing process. Promoting nursing awareness of early recognition and management of mucositis can reduce complications for PBSCT patients. On the Bone Marrow Transplant inpatient unit, many PBSCT patients are diagnosed with mucositis within the first two weeks after transplant. This is due to immunosuppression and direct toxicity of cytotoxic drugs to the mucosal cells causing a slow regeneration of the

oral mucosa. Some of the clinical symptoms of mucositis are redness, tenderness of gums, ulcers, pain, dry mouth, and difficulty swallowing. Implementing nursing interventions that focus on patient teaching, oral assessment, and nutrition status promotes positive patient outcomes. In this case study, the patient completed high dose chemotherapy and received PBSCT successfully. On D+6, patient complained of dry mouth without ulcers. Nursing assessment, patient teaching on mouth care, and as needed (prn) medications were offered for pain. Patient continued to complain of worsening pain and had decreased nutritional intake. On D+8, patient controlled analgesia (PCA) Fentanyl for throat pain and total peripheral nutrition (TPN) to increase nutritional intake were initiated. On D+12 the patient continued to complain of oropharynx pain and was not able to tolerate oral nutritional intake. Nurses recognized that the patient was not taking the Lidobenolox as prn and reinforced the importance through education. After receiving education, the patient reported that the medication before meals gradually helped to decrease the pain associated with oral hydration and nutrition. On D+16, further improvement was noted when the patient started eating soft foods, drinking liquids, and reported improved mucositis pain. On D+17, PCA was discontinued. The patient had improvement of mucositis within 10 days and received full engraftment of PBSCT. In management of mucositis, the nurse advocated for Lidobenolox to be changed from prn to scheduled, provided patient teaching about oral care, medications, PCA, and importance of nutrition. Managing mucositis in this patient was effective with a positive outcome. Early recognition of mucositis is important in prompt intervention and management. Educating oncology nurses of the importance of early recognition and management of mucositis increases nursing awareness and improves patient outcomes for PBSCT patients.

**504**  
**USE OF MEPITEL FILM FOR REDUCING RADIATION REACTIONS IN WOMEN UNDERGOING RADIATION THERAPY . . . PUTTING EVIDENCE INTO PRACTICE**

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**Category: Oncology Nursing Practice**

Moist desquamation or the pain and sloughing of moist excoriated skin can occur in ~ 36% of patients undergoing external beam radiation therapy. This

may result in increased pain, delays in therapy and increased potential for infection. The use of Mepitel Film (TM) was shown to prevent this moist desquamation in women undergoing external beam radiation therapy. Based on this evidence the radiation oncology department at UCSF obtained the film for use with our breast cancer patients undergoing adjuvant radiation therapy. We noticed a significant clinical reduction in the overall radiation reactions noted in our patient population. We have become quite proficient in the use and placement of the film and potential problems that one may encounter with using this film. This poster presentation will present our practical experiences and recommendations for using the film to reduce radiation therapy reactions in patients undergoing external beam radiation therapy.

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**INDUSTRY SUPPORTED**

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**2**  
**PUTTING THE PATIENT AT THE CENTER OF MEDICAL INFORMATION—A PATIENT-CENTRIC STANDARD RESPONSE LETTER INITIATIVE**

**Chelsea Aiudi, PharmD, BCMAS, TESARO: A GSK Company, Waltham, MA**

**Category: Patient Education and Safety**

Patient-friendly materials to address patient requests received through medical information (MI) departments are lacking. The development of patient-centric standard response letters (SRLs) provides additional information to patients seeking information related to their healthcare. In addition, increasing patients' comprehension of their medication may increase adherence, sustain efficacy, and limit adverse events. This retrospective analysis of call center inquiries on a marketed ovarian cancer product identified common topics and the percentage of MI requests received from patients/caregivers. We developed SRLs, reviewed by medical, legal, and a patient panel, to answer the most frequently asked questions. Of the 3254 MI requests received by the United States (US) call center from March 2017 through July 2018, 22% were from patients. The most common topics of patient inquiry were availability (16%), safety (12%), miscellaneous (12%), efficacy (11%), patient assistance (8%), and administration (7%). Based on the most frequently asked questions, we identified 9 topics for development into SRLs. MI created an SRL template based on best practices identified in the

literature. Each SRL featured: infographics, headings phrased in question format, and a glossary to explain difficult medical terms. A Flesch-Kincaid grade-level assessment was performed to assess readability. The 9 SRLs had an average level of 10th grade (higher than the 8th grade average for US residents). We created a unique workflow for reviewing the patient-centric SRLs; each letter was reviewed by medical and legal, then sent to a panel of 18 ovarian cancer patients/survivors. The patient panel provided feedback on specific areas such as format and design, language, and content. The patient panel was also asked to assess real-world readability and identify any difficult words to help improve readability. After SRLs were updated based on panel feedback, medical and legal reviewed and provided final approval. Once approved, patient-centric SRLs were sent to the call center to be distributed in response to unsolicited requests. Of the 96 patient MI requests received by the US call center since this initiative launched (December 2018–April 2019), 22% were answered with a patient-centric SRL. The feedback from our patient panel reinforces the need for patient-facing materials, especially in the ovarian cancer community. Importantly, the patient-centric SRLs make use of infographics and patient-friendly language to engage the reader and increase comprehension.

### 3 **TREATMENT CONSIDERATIONS FOR PATIENTS WITH ADVANCED BREAST CANCER WHO RECEIVE ALPESISIB AFTER CDK4/6 INHIBITOR-BASED THERAPY**

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**Category: Oncology Nursing Practice**

In patients with hormone receptor-positive (HR+), human epidermal growth factor receptor-2–negative (HER2–) advanced breast cancer (ABC), endocrine therapy (ET) with or without a cyclin-dependent kinase 4/6 inhibitor (CDK4/6i) is often used for first-line treatment. Patients with mutations in the PIK3CA gene who progressed on or after ET are eligible to receive the phosphatidylinositol-3-kinase (PI3K) alpha-selective inhibitor alpelisib plus fulvestrant. Alpelisib plus fulvestrant was approved after the SOLAR-1 trial showed improved progression-free survival (PFS) over fulvestrant alone (median PFS, 11.0 months vs 5.7 months) for patients with a

PIK3CA mutation along with a tolerable safety profile. However, few patients (5.9%) in SOLAR-1 had previously received CDK4/6i-based therapy. Because most patients are likely to receive a CDK4/6i prior to alpelisib, guidance on optimal patient care is needed. This review of alpelisib safety in a post-CDK4/6i setting includes interim data from 2 cohorts of the ongoing BYLieve trial (NCT03056755), which evaluates alpelisib plus ET in patients with PIK3CA-mutated HR+, HER2– ABC who progressed on or after prior therapies (including CDK4/6i), and the SOLAR-1 trial. Recommendations are provided based on published data, regulatory guidance, and the authors' clinical experience with alpelisib. The most frequent adverse events (AEs) in BYLieve and SOLAR-1 were hyperglycemia, gastrointestinal toxicities (including diarrhea, nausea, and vomiting), and rash. There were no safety signals such as mood disorders or other off-target effects associated with pan-PI3K inhibitor treatment. Due to the rapid onset of hyperglycemia, frequent glucose monitoring (once/week for the first 2 weeks then at least once/month) is recommended upon alpelisib initiation. Healthcare providers may recommend a low-carbohydrate diet and exercise plan to patients and should consult with an endocrinologist for additional guidance as needed. Practical recommendations for rash prevention and management include use of prophylactic antihistamines (ie, cetirizine), topical steroids for management of low-grade rash, and instructing patients on a consistent skin-care routine with limited sun exposure. Diarrhea may be managed with antidiarrheal treatment (ie, loperamide) and by sustaining hydration. Providing diaries may help patients track their medication schedule. Patients should be encouraged to notify caregivers at first signs of any AEs. Accessible educational resources and practical guidelines are vital for caregivers and patients for reducing onset and optimizing management of alpelisib-associated AEs.

### 45 **NURSING RESOURCES FOR DELIVERING QUALITY AND SAFE CARE: ASCO/ONS CHEMOTHERAPY ADMINISTRATION SAFETY STANDARDS IMPLEMENTATION**

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**Category: Oncology Nursing Practice**

There is a need for resources to educate and promote specialized knowledge and skill in quality and safety in chemotherapy administration. Oncology nurses can provide and assure delivery of high-quality care



through an understanding and implementation of the ASCO/ONS Chemotherapy Administration Safety Standards. The American Society of Clinical Oncology Clinical Consulting Services has oncology nurse resources with specialized knowledge in quality and safety in chemotherapy administration. The oncology nurse resources aim to promote nursing knowledge and practice expertise in the delivery of quality care through a comprehensive chemotherapy administration care delivery assessment and findings for learning needs. The ASCO/ONS Chemotherapy Administration Safety Standards are relevant to domestic and international oncology practice. A comprehensive chemotherapy administration care delivery assessment is performed that identifies strengths, risks, and opportunities for improvement in patient care. The assessment tool focuses on the four domains of chemotherapy administration safety standards: creating a safe environment, treatment planning/patient consent/patient education, ordering/preparing/dispensing/chemotherapy administration, and monitoring after chemotherapy administration. The ASCO/ONS Chemotherapy Administration Safety Standards are utilized for evaluation of oncology nursing care. The comprehensive review delivers a needs assessment regarding oncology nurse education and competency and readiness for quality and safety recognition. Nursing-sensitive patient outcomes interventions include evaluation of initial training, orientation, and competency assessments to ensure high quality, safe care in patients receiving chemotherapy. The assessment tool is based on Oncology Nursing Society and ASCO guidelines and standards. The Clinical Consulting Services are continually evaluating best oncology nursing practices to share and support to practice implementation. Case studies will be shared on the outcomes of applying this oncology nurse resource. Nursing plays a critical role in performing quality and safe care while actively improving systems and care delivery, all resulting in improved patient experiences and outcomes. The expert clinical resource performing a comprehensive chemotherapy administration care delivery assessment is an innovative approach identifying learning needs that support nursing in this role.

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### **POOLED PHASE 3 STUDIES EVALUATING NEPA, A SINGLE-DOSE FIXED COMBINATION OF NETUPITANT/PALONOSETRON VS A 3-DAY APREPITANT-BASED REGIMEN (APR) FOR PREVENTION OF CHEMOTHERAPY-INDUCED**

### **NAUSEA AND VOMITING (CINV) IN PATIENTS RECEIVING HIGH-DOSE CISPLATIN**

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**Category: Symptom Management and Palliative Care**

Cisplatin is the most highly emetogenic chemotherapy (HEC) agent with higher doses presenting the greatest risk. NEPA is the only fixed-combination antiemetic comprised of netupitant, an NK<sub>1</sub> receptor antagonist (RA), and palonosetron, a 5-HT<sub>3</sub> RA. The clinical development program for oral NEPA included three registration studies assessing NEPA in the cisplatin chemotherapy setting. Oncology nurses, as collaborative members of the oncology team, assess patients' risk for CINV before chemotherapy administration and know cisplatin, at all doses, is classified as HEC per all antiemetic guidelines. This post-hoc analysis evaluated the antiemetic efficacy of NEPA versus an aprepitant (APR), 5-HT<sub>3</sub> RA, dexamethasone (DEX) regimen in patients receiving high cisplatin doses ( $\geq 70$  mg/m<sup>2</sup>). Chemotherapy-naïve patients in three controlled, double-blind, multi-national trials were randomly assigned to receive a single oral dose of NEPA+DEX (N=405) prior to cisplatin on Day 1, or a 3-day APR comparator regimen (N=353). All patients received DEX on Days 2–4. Inclusion criteria were similar across studies. Data was pooled for all patients receiving  $\geq 70$  mg/m<sup>2</sup> cisplatin evaluating the following efficacy endpoints: 1) complete response (no emesis, no rescue); 2) no significant nausea (NSN, max <25 mm on 100 mm VAS); and 3) complete protection (no emesis, no rescue and NSN) for the acute (0–24h), delayed (25–120h) and overall (0–120h) phases as well as daily on Days 1–5. Treatments and associated risks were compared using generalized linear models with log-link function and binomial distribution (log-binomial model). In this post-hoc pooled analysis of patients receiving high-dose cisplatin, response rates were similar in patients receiving NEPA or APR during the acute phase. Conversely, responses significantly favored NEPA during the delayed and overall phases as well as on Days 3–5. This pooled analysis established that oral NEPA, administered on Day 1 only was more effective than a 3-day APR regimen in preventing CINV during the delayed and overall phases in patients at high risk for CINV from high-dose cisplatin; the greatest differences occurred on Days 3–5. In clinical practice, oncology nurses must follow up with

patients at risk for delayed CINV. NEPA, a single capsule of an NK1RA/5HT<sub>3</sub>RA administered once before chemotherapy, is a simple, convenient, and highly effective prophylactic guideline-concordant combination antiemetic that may enhance patients' ability to minimize CINV.

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#### **PATIENTS RECEIVING PEGFILGRASTIM VIA PREFILLED SYRINGE RECEIVE CLOSER CARE RESULTING IN FEWER DOSE DELAYS COMPARED WITH ON-BODY INJECTOR**

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*Category: Symptom Management and Palliative Care*

Breast Cancer and Non-Hodgkin Lymphoma patients often receive chemotherapy that puts them at high-risk of febrile neutropenia. Chemotherapy effectiveness is reduced when patients must reduce, delay, or discontinue chemotherapy due to toxicities. Growth factors, including pegfilgrastim, are employed to prevent febrile neutropenia. We conducted a study comparing neutropenia rates and dose delays in patients receiving chemotherapy with high-risk of febrile neutropenia who received (1) no pegfilgrastim, (2) pegfilgrastim via pre-filled syringe (PFS), (3) pegfilgrastim via on-body injector (OBI). We utilized EHR, practice management systems, and CMS claims data for eight practices supported by Integra Connect Population Health to construct synthetic chemotherapy episodes of care. Each episode began with a chemotherapy administration and ended the day of the next chemotherapy administration, or after 14 days. Each episode was assigned to a pegfilgrastim cohort. Outcomes were assessed using a matched cohort analysis. Episodes were matched based on age, sex, cancer type, number of comorbidities, regimen, chemo start date (within 90 days), chemo cycle, and OCM provider quality metrics. Compared with no pegfilgrastim, PFS episodes had 7.1% less grade IV neutropenia (ANC < 500,  $p < 0.0001$ ) and 3.3% fewer dose delays ( $p = 0.0123$ ,  $n = 1603$ ). Compared with OBI, PFS episodes had 1.2% less grade IV neutropenia ( $p = 0.043$ ) and 3.3% fewer dose delays. PFS episodes include more non-chemotherapy office visits than OBI episodes (2.2 vs 1.2,  $p < 0.001$ ). PFS patients have more unplanned office visits (70% vs 41%,  $p < 0.001$ ) and more hydration (31% vs.

22%,  $p = 0.033$ ). OBI episodes are 18% more likely to include hospitalization ( $p = 0.031$ ). Exploratory analysis highlights the impact of nursing visits between chemotherapy administrations. Patients returning next day to receive pegfilgrastim frequently receive other services, such as labs and hydration. These services lead to fewer dose delays, perhaps because toxicities other than neutropenia are detected earlier in the episode and can be managed in the office. This implies that use of PFS may be used as part of a strategy to shift site-of-service for management of side effects into the physician office and away from hospitals and emergency departments. This data also emphasizes the important role that nurses play in the oncology care team, managing symptoms and helping to keep patients well, and to ensure that chemotherapy is delivered on schedule.

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#### **CLINICAL RELEVANCE OF DRUG-DRUG INTERACTIONS WITH DAROLUTAMIDE**

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*Category: Treatment Modalities*

Patients with non-metastatic castration-resistant prostate cancer (nmCRPC) receive multiple medications in addition to anticancer therapy. Drug-drug interactions (DDIs) may result in adverse events (AEs) or loss/increase of drug effect. It is important for nurses to understand DDIs to reduce patient risk from polypharmacy. Darolutamide is a novel androgen receptor antagonist, recently approved for nmCRPC. We report investigations of the impact of darolutamide DDIs in men with nmCRPC. The phase III ARAMIS study investigated metastasis-free survival in patients with nmCRPC receiving androgen deprivation therapy randomly assigned 2:1 to darolutamide or placebo. A population pharmacokinetic analysis of ARAMIS data evaluated the impact of comedications on darolutamide. A subgroup analysis of AEs in statin users versus non-users was also performed. Most patients reported at least one comorbidity (98.4% both arms), most commonly hypertension, obesity, hypercholesterolemia, osteoarthritis, benign prostatic hyperplasia, and diabetes. Nearly all patients received

at least one concomitant medication: 98.7% (darolutamide), 98.0% (placebo). The most frequently used were antihypertensives, analgesics, antithrombotics, lipid-modifying agents, cardiovascular agents, urological agents, proton pump inhibitors, and systemic antibiotics. Phase I studies of DDIs with standard drugs showed that itraconazole had little effect on darolutamide, and darolutamide had little or no effect on the sensitive substrates midazolam or dabigatran. The main interaction of note was increased exposure to rosuvastatin. The population pharmacokinetic analysis included 388 darolutamide patients and found that no comedication used significantly affected darolutamide plasma concentrations. The incidence of AEs and permanent discontinuations due to AEs was similar in each treatment arm. Strong CYP3A4 inducers, e.g. rifampicin and carbamazepine, which decrease darolutamide exposure, were infrequently used, and therefore expected risk in clinical practice is low. While concomitant use of darolutamide with rosuvastatin increased its exposure, the incidence of treatment-emergent AEs was found to be comparable between statin users and non-users, suggesting no adverse effect of comedication. No difference in statin-related AEs could be attributed to co-administration with darolutamide, either overall or in the subset of patients taking BCRP substrate statins, e.g. atorvastatin, fluvastatin, and rosuvastatin. These findings suggest limited potential for clinically relevant DDIs with darolutamide in patients with nmCRPC. Interactions noted with rosuvastatin did not translate into increased AEs in the ARAMIS trial. These findings are important for management of patients with nmCRPC.

## 160 TUMOR TREATING FIELDS, A NEW TREATMENT FOR MALIGNANT PLEURAL MESOTHELIOMA: IMPLICATIONS FOR ONCOLOGY NURSES

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Category: Oncology Nursing Practice

Mesothelioma is a rare asbestos-related cancer with malignant pleural mesothelioma (MPM) being the most common subtype. MPM is diagnosed in < 3,000 patients per year in the United States (US). MPM is an aggressive tumor and is difficult to treat. MPM has

a long latency period and typically occurs 2–4 decades after exposure to asbestos. The standard-of-care for un-resectable MPM patients for the last 15 years has been systemic chemotherapy (platinum plus pemetrexed). NovoTTF-100LTM System received FDA approval for MPM via the Humanitarian Device Exemption (HDE) pathway in May 2019. In patients with advanced un-resectable disease the median overall survival (mOS) is about 12 months. TTFields has extended median overall survival to 18.2 months. Due to the poor prognosis associated with the diagnoses of MPM, this new treatment offers the oncology nurse new strategies to help educate MPM patients while promoting excellence in cancer care. The purpose of this abstract is to raise awareness of the NovoTTF-100L System which is a wearable, portable device indicated for the treatment of adult patients, with un-resectable, locally advanced or metastatic, malignant pleural mesothelioma (MPM) to be used together with standard chemotherapy (pemetrexed and platinum-based chemotherapy). NovoTTF-100L delivers Tumor Treating Fields (TTFields) to selectively disrupt the rapid division of cancer cells and provide continuous action against MPM. Oncology nurses may have experience with TTFields, which was FDA approved in April 2011 for recurrent Glioblastoma Multiforme (GBM), and in October 2015 for newly diagnosed GBM. To date more than 10,000 GBM patients have received treatment with TTFields (Optune). As the use of TTFields extends to MPM, it is critical that oncology clinics build awareness and education of this new treatment. TTFields therapy for MPM is initiated in the clinic and continued at home. Proper patient and caregiver education, by the oncology nurse is essential for successful integration. Oncology nurses play a key role as they lead the way of transformative care, while focusing on achieving quality patient care. Thus, it becomes incumbent upon them to keep abreast of emerging therapies such as TTFields which offer the newest advancement for MPM patients.

## 178 FIVE YEARS OF FOLLOW-UP FROM THE PHASE 3 RESONATE-2 STUDY AND NURSING EXPERIENCE WITH PATIENTS RECEIVING FIRST-LINE IBRUTINIB FOR CHRONIC LYMPHOCYTIC LEUKEMIA

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**Category: Oncology Nursing Practice**

Ibrutinib is the only once-daily inhibitor of Bruton's tyrosine kinase with significant progression-free survival (PFS) benefit demonstrated in 5 randomized phase 3 studies in patients with chronic lymphocytic leukemia/small lymphocytic lymphoma (CLL/SLL), and overall survival (OS) benefit in 3 of these studies. Because single-agent ibrutinib is given as continuous therapy, nurses play a critical role in supporting continuous treatment for maximal benefit. The purpose of this was to report long-term data from the phase 3 RESONATE-2 study of first-line ibrutinib versus chlorambucil in older patients with CLL/SLL and provide experienced-based recommendations for CLL management and patient education. Patients  $\geq 65$  years old with previously-untreated CLL/SLL without 17p deletion (N=269) were randomized 1:1 to ibrutinib 420 mg continuously (n=136) or chlorambucil 0.5–0.8 mg/kg for  $\leq 12$  cycles (n=133). With median follow-up of 5 years (range, 0.1–66 months), ibrutinib demonstrated sustained PFS benefit (median PFS: ibrutinib, not reached; chlorambucil, 15 months; 5-year PFS estimates: ibrutinib, 70%; chlorambucil, 12%). 5-year OS was also improved with ibrutinib (83%) versus chlorambucil (68%). Superior PFS and OS were observed with ibrutinib for patients with high-risk genomics features (unmutated IGHV, 11q deletion, and/or TP53 mutation). With ibrutinib, the overall response rate was 92% and complete responses (CR/CRi) increased over time (11% [median 18 months] to 30% [median 5 years]). Neutropenia (13%) and pneumonia (12%) were among the most common grade  $\geq 3$  adverse events (AEs). Rates of most AEs as well as rates of dose reductions and discontinuations due to AEs decreased over time. Discontinuations due to disease progression while on ibrutinib were low (6%). More than half of patients (58%) remained on ibrutinib. Per nurse authors' experience, nurses are the first health-care provider to meet patients, perform initial patient history review (eg, CLL-related symptoms and concomitant medications) to provide to the care team, and educate patients on benefits of continuous ibrutinib. Nurses also may be the first to identify AEs and can then refer patients to their treating physician for recommendations/management. The nurse authors

recommend reviewing written materials with patients to optimize understanding of AEs. Single-agent ibrutinib was well-tolerated and demonstrated sustained survival benefit in the RESONATE-2 study. Nurses can help guide AE management by providing details of the AE to the care team and reinforce the benefits of continuous ibrutinib to patients.

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### **LONG-TERM TREATMENT OUTCOME WITH NIRAPARIB IN PATIENTS WITH RECURRENT OVARIAN CANCER: RESULTS FROM THE ENGOT-OV16/NOVA TRIAL**

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**Category: Patient Education and Safety**

Niraparib is a poly(ADP-ribose) polymerase inhibitor approved in the United States and Europe for maintenance treatment of patients with recurrent ovarian, fallopian tube, or primary peritoneal cancer (ROC) following complete or partial response to platinum-based chemotherapy. Here, we present data on long-term safety and data on the second progression-free survival (PFS<sub>2</sub>) interval (to confirm that niraparib treatment did not negatively affect response to subsequent treatment) for patients enrolled in the ENGOT-OV16/NOVA trial (NCT01847274). ENGOT-OV16/NOVA enrolled 553 patients with ROC who received 2–3 prior lines of platinum-based chemotherapy. Patients were randomized 2:1 to receive niraparib (300 mg once daily) or placebo in independent germline BRCA-mutated (gBRCAmut) or non-gBRCAmut cohorts. We report treatment-emergent adverse event (TEAE) incidence monthly for the first 12 months, subsequent time intervals report cumulative data from 13 months until the safety data cutoff (September 2017). PFS<sub>2</sub> interval was determined by subtracting the first PFS duration (time from randomization until first progression) from the PFS<sub>2</sub> duration (time from randomization until the second progression). Efficacy analyses used the June 2016 data readout. Overall, 367 patients initiated niraparib at 300 mg once daily. Dose reductions due to TEAEs were highest in month 1 (34%). In month 5, only 7% of patients required dose reductions. The incidence grade  $\geq 3$  hematologic toxicity,

and gastrointestinal TEAEs decreased over the first 6 months and remained low thereafter. Incidence of grade  $\geq 3$  thrombocytopenia was highest in month 1 (28%) decreasing to  $<1\%$  by month 5. Treatment discontinuations due to TEAEs were  $<5\%$  in each month and time interval measured. PFS<sub>2</sub> analysis showed that patients who had received niraparib in the ENGOT-OV16/NOVA trial had a similar PFS<sub>2</sub> interval to patients who received placebo (hazard ratio, 1.02; 95% CI, 0.765, 1.349). The incidence of hematologic and gastrointestinal TEAEs decreased quickly over the first 6 months using the protocol-specified dose modifications and continued to decrease over the duration of the trial. Dose reductions and grade  $\geq 3$  thrombocytopenia events were highest in month 1 and decreased rapidly thereafter. PFS<sub>2</sub> interval data indicate that niraparib treatment did not negatively affect subsequent treatment response. These data support the safe, long-term use of niraparib for maintenance treatment in patients with ROC. Funding: TESARO: A GSK Company, Waltham, MA

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### **ENCORAFENIB PLUS CETUXIMAB WITH OR WITHOUT BINIMETINIB FOR BRAF V600E-MUTANT METASTATIC COLORECTAL CANCER: MANAGEMENT OF ADVERSE EVENTS FROM A RANDOMIZED, 3-ARM, PHASE 3 STUDY VS. THE CHOICE OF EITHER IRINOTECAN OR FOLFIRI PLUS CETUXIMAB (BEACON CRC)**

Tracy Trevino, BSN, RN, University of Texas MD Anderson Cancer Center, Houston, TX; Scott Kopetz, MD, PhD, University of Texas MD Anderson Cancer Center, Houston, TX; Axel Grothey, MD, West Cancer Center and Research Institute, Germantown, TN; Rona Yaeger, MD, Memorial Sloan Kettering Cancer Center, New York, NY; Victor Sandor, MD, Pfizer Inc, New York, NY; Lydia Velez, RN, Vall d'Hebron University Hospital, Vall d'Hebron Institute of Oncology, Barcelona

Category: Treatment Modalities

BRAF mutations occur in up to 15% of metastatic colorectal cancer (mCRC) cases and the BRAFV600E mutation is a marker of poor prognosis. Inhibition of BRAF alone has not demonstrated clinical activity, due to a rapid feedback activation of EGFR that supports continued proliferation of BRAFV600E-mutated CRC tumor cells. In the BEACON CRC study, encorafenib (ENCO) + binimetinib (BINI) + cetuximab (CETUX) significantly improved overall survival (HR:0.52,  $P<0.0001$ ) and objective response rates (26% vs 2%,  $P<0.0001$ ) in patients with BRAFV600E

mCRC compared with current standard of care. This analysis focuses on common adverse events (AEs) that occurred during the study and best practices on managing and mitigating these events. The BEACON CRC study was a randomized, 3-arm, phase 3 study which evaluated triplet (ENCO+BINI+CETUX) or doublet (ENCO+CETUX) regimens vs. investigator's choice of irinotecan or FOLFIRI + CETUX in 665 pts with BRAFV600E mCRC. QOL assessments included EORTC-QLQ-C30, FACT-C, EuroQol 5D 5L, and PGIC. The incidence and severity of AEs were assessed according to the NCICTCAE, version 4.03. 665 patients were randomized to triplet (n=224), doublet (n=220), or control (n=221). The most common grade  $\geq 3$  AEs seen in the experimental arms (triplet or doublet) were gastrointestinal and skin-related events, including diarrhea (10%), abdominal pain (6%), and nausea (5%). Low hemoglobin/anemia was a common laboratory abnormality (10%). Headache, musculoskeletal pain, arthralgia, and myalgia occurred more frequently in the doublet combination, consistent with ability of MEK inhibitor in the triplet to mitigate some BRAF-inhibitor associated toxicities. Class-related toxicities of MEK inhibitors, including serous retinopathy, occurred at rates similar to that previously observed and were generally reversible. Management of AEs included treatment interruptions, dose reductions, and/or therapeutic interventions, when needed. Discontinuation of therapy primarily due to an AE was seen in 7% of patients in the triplet arm, 8% for the doublet arm, and 11% for the control arm. The triplet and doublet both demonstrated improvement in patient-reported QOL assessments over the control arm. The incidence, course, and management of class-based adverse events will be further described. AEs that occurred during the BEACON CRC study on the experimental arms were generally manageable, reversible, and infrequently associated with treatment discontinuation. Clinical Trial ID: NCT02928224

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## **INTERNATIONAL**

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### **IMPACT OF PATIENT EDUCATION ON SELF-CARE EFFICACY OF PATIENT WITH STOMA**

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**Khanum Cancer Memorial Hospital and Research Center, Lahore, Pakistan**

**Category: Patient Education and Safety**

Stoma education is one of the core components to get high level of self-care efficacy among stoma patient and deficiency in systematic patient education to meet self-care efficacy standards is significant problem in stoma patients. The consistent and effective surveillance of problems of stoma patient will help to generate guidelines. The prime objective of the study was to evaluate the impacts of systematic patient education on self-care efficacy of patient with stoma. It was also aimed to evaluate the impact of patients' age, gender, educational level, and employment status on self-care efficacy of these patients. The Randomized control trial used as study design with simple random sampling of both control and experimental group. The Sample of 84 participants was taken from tertiary care hospital in Lahore in the way to get 2 homogenous groups. The control group get traditional stoma education regarding self-care efficacy whereas, experimental group was introduced to systematic stoma self-care efficacy education. The data collection tool was structured questionnaire, categorized into demographic, clinical characteristic, and self-care efficacy tool. The value of Cronbach's alpha was 0.94. The data analysis was on SPSS version 21. The t-test was used to check difference in mean self-care efficacy score with p value of <0.05 was considered significant. The systematic approach of patient educations have significantly increased in patient's self-care efficacy. The self-care efficacy mean score of control group is  $31.9 \pm 5.9$  whereas mean score of self-care efficacy of experimental group  $52.2 \pm 5.8$  with p value of 0.004. Likewise self-care efficacy of experimental group participants is significant in gender (0.007), age (0.02) and employment status (0.005) as p-value is less than 0.05 but is insignificant in education level (p-value 0.11). The study findings concluded the increase in self-care efficacy score due to systematic stoma education as compared to traditional education. The self-care efficacy with respect to age, gender and educational level does have influenced by systematic stoma education among experimental group as compared to control group.

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**TANZANIA BRIDGE PROGRAM**

**Pieper Bloomquist, RN, BSN, OCN<sup>®</sup>, Altru Cancer Center, Grand Forks, ND**

**Category: Oncology Nursing Practice**

The Tanzania Bridge Program is a grassroots effort by select ONS chapters to provide Oncology Nursing

Education for three nurses visiting from Tanzania in order to make changes in their home communities. Tanzania is one of poorest countries in the world. Due to a cultural lack of awareness surrounding cancer and cancer symptoms, lack of programs for early detection, and lack of cancer care availability, a cancer diagnosis in Tanzania is close to a death sentence. Nearly all patients are in the advanced stages, so treatment is often palliative in nature. Our goals for this program were: 1) Expose Tanzanian nurses to US-based oncology care through job shadowing experiences in the week prior to ONS Congress with US oncology-certified nurses, 2) Further expand Tanzanian-US nursing partnerships, facilitating ongoing collaboration and mutual learning, 3) Advance general oncology knowledge among Tanzanian nurses through attendance at ONS Congress in Los Angeles CA. Six chapters collaborated financially to cover expenses. One chapter sponsored job shadow experiences in chemo infusion, inpatient palliative care, home care hospice, and wound care for 5 days, allowing observation and opportunities for discussion with American oncology nurses. The nurses were then accompanied to Anaheim, CA to attend ONS National Congress. During the job shadow experience, it became clear cutting-edge treatment and immunotherapy was less relevant due to cost and unavailability in Tanzania. Palliative and wound care better met their needs. After their return to Tanzania, the following changes were recommended and made at the nurse's respective institutions: Kilimanjaro Cancer Center ordered two IV infusion pumps to administer longer chemo infusions, designated one staff member as patient navigator to prevent patients from getting lost in follow-up, and initiated regular follow-up with palliative care patients after the initial visit—daily for inpatient, twice weekly for home visits. At Ocean Road Cancer Institute, the nurses' exposure to immunotherapy, oral chemotherapies, and wound care, including maggot therapy, are allowing them to incorporate this information into oncology nurse education. Addition of frequent staff huddles and patient rounding is improving the inpatient nursing process. The professional and personal relationships made during this program have fostered collaborations in other realms of chapter relations. Our hope is to offer this opportunity again in 2021, and to connect chapters interested in participating.

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**PAIN MANAGEMENT SATISFACTION REPORTED BY CANCER PATIENTS IN A NATIONAL COMPREHENSIVE CANCER CENTER IN ITALY**

**Gianluca Catania, PhD, RN, University of Genoa, Department of Health Sciences, Genova; Anna Maria**

Bagnasco, PhD, RN, University of Genoa, Department of Health Sciences, Genova; Milko Zanini, PhD, RN, University of Genoa, Department of Health Sciences, Genova; Bruno Cavaliere, MSN, RN, IRCCS Ospedale Policlinico San Martino, Genova; Loredana Sasso, RN, FAAN, FFNMRCI, University of Genoa, Department of Health Sciences, Genova

**Category: Symptom Management and Palliative Care**

Despite guidelines available for pain management, research keeps showing that hospitalized cancer patients experience dissatisfaction for pain management. Ninety percent of patients report pain along their disease trajectory. Pain affects negatively quality of life and emotional status of cancer patients. Cancer nurses are in the key roles to develop a successful nursing care plan to address appropriately cancer pain management. We conducted a descriptive cross-sectional study to describe Italian cancer patients' pain characteristics and levels of pain management satisfaction; and to determine if pain intensity is a predictors of pain management satisfaction among cancer patients. We used the Italian validated version of the American Pain Society-Patient Outcome Questionnaire to survey 114 Italian cancer patients from different oncology units in the Ligurian region in Italy. Pearson  $\chi^2$  test or Fisher's exact test where the expected cell count was < 5 was used to determine the association between categorical variables. The results showed that most of the patients (53%) reported mild to severe pain intensity. Pain impacted on mood in 82% of the patients and interfered with sleep in 75% of patients, mainly. A significant positive association was found between patient satisfaction and having absent/mild pain intensity (OR, 0.13 [95% CI, 0.028 to 0.59];  $p = 0.015$ ). The results of the study show that cancer patients have pain undertreated, and that it needs to improve cancer pain management and expanding the role of cancer nurses in symptom management. Cancer nurses should identify which procedures are best for cancer pain management in inpatient cancer units. Italian cancer nurses are committed to providing the highest cancer nursing care and this study represents the first step to improving cancer pain nursing management in Italy.

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### **NURSING EXPERIENCE OF A CONGENITAL HEARING IMPAIRED PATIENT WITH TESTICULAR LYMPHOMA**

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General Hospital, Taipei City; Shu-Ching Hsueh, MD, Cheng Hsin General Hospital, Taipei City

**Category: Coordination of Care**

Primary Testicular lymphoma is a rare, clinically aggressive form of non-Hodgkin lymphoma. Its annual occurrence is about 0.8 to 10.5 per 100,000 population and comprises around 9% of testicular cancers and 1–2% of all non-Hodgkin lymphomas. The occurrence differ with country, race, and socioeconomic status, and is lower in Asians as compare to Caucasians. This article discussed a nursing experience of a congenitally hearing impaired patient with primary testicular lymphoma. Using observation, reading and writing conversation, complete physical examination, and Gordon 11 Function Health Patterns, the following health problems were established: verbal communication handicap, anxiety, and risk of serious infection/sepsis. Utilizing professional nursing technique to find the nursing problems and to formulate nursing plans, individual oriented nursing care to the patient, helping patient to fulfill basic needs and maintain body comfort, relieve the patient's anxiety and worry with reading/writing communication and health education, enhance patient's compliance and confidence toward chemotherapy. We present this case not only for its rarity, we also wish to provide a reference for nursing care of such patients in the future.

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### **SPHENOID SINUS BASALOID SQUAMOUS CELL CARCINOMA IN AN ASYMPTOMATIC ADULT MALE: CASE REPORT WITH REVIEW OF THE LITERATURE**

Kai-Chun Chen, RN, Cheng Hsin General Hospital, Taipei City; Kevin Tseng, MD, PhD, Wuri Lin Shin General Hospital, Taipei City; Shu-Ching Hsueh, MD, Cheng Hsin General Hospital, Taipei City

**Category: Coordination of Care**

Basaloid squamous cell carcinoma (BSCC) is a variant of squamous cell carcinoma (SCC) with more aggressive behavior. BSCC occurs commonly in the respiratory and upper digestive tracts. BSCC involved only in the paranasal sinus is rare. We encountered a 63-year-old male with left paranasal sinus enhancement under Positron Emission Tomography (PET) scan and mildly elevated serum SCC marker during a routine health examination. Clinically, the patient showed no symptoms (like decreased vision or headache) which suspected of paranasal sinus tumor. Magnetic Resonance Imaging (MRI) and Computerized Tomography (CT) scan revealed no clear

presence of tumor either within the paranasal sinus or other parts of head and neck region. Careful endoscopic examination performed and a tumor was found along the left border of left sphenoid sinus. Biopsy performed and pathologic studies indicated invasive BSCC. Due to the location of the tumor and its proximity to the surrounding vital structures, stereotactic radiosurgery (Cyberknife) was utilized for tumor resection. Post-operatively, the patient received a course of radiation and chemotherapy, followed by target therapy with Cetuximab (Erbix<sup>®</sup>) plus regular follow-ups. The patient was alive with no metastatic disease after two years since tumor resection. Both MRI and CT scan did not show recurrence or progressive disease in the surgical resection site. To the best of our knowledge, only one case of sphenoid sinus BSCC was ever reported. Therefore, we are reporting this case for its rarity.

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### **NURSING EXPERIENCE OF A PATIENT DIAGNOSED OF PRIMARY SMALL BOWEL GASTROINTESTINAL STROMAL TUMOR WITH LIVER, COLON, AND ABDOMINAL WALL METASTASIS COMPLICATED WITH ABDOMINAL WALL PERFORATION**

**Kai-Chun Chen, RN, Cheng Hsin General Hospital, Taipei City; Kevin Tseng, MD, PhD, Wuri Lin Shin General Hospital, Taipei City; Shu-Ching Hsueh, MD, Cheng Hsin General Hospital, Taipei City**

*Category: Oncology Nursing Practice*

Gastrointestinal stromal tumors (GIST) is one of the most common malignant tumor of the gastrointestinal tract. It's mostly arised in the 50–60 age population. According to the Taiwanese National Health Insurance database, there are currently about 1700 GIST patients in Taiwan with 200–300 new onset cases annually. We present the nursing experience of a patient with primary GIST with liver, colon, and abdominal wall metastasis plus abdominal wall perforation. Using observation, reading and writing conversation, complete physical examination, and Gordon 11 Function Health Patterns, the following health problems were established: skin integrity disruption, pain, malnutrition, anxiety, psychological and associated somatic disturbance, and risk of serious infection/sepsis. Utilizing professional nursing technique to find the nursing problems and to formulate nursing plans, individual oriented nursing care to the patient, helping patient to fulfill basic needs and maintain body comfort, relieve the patient's anxiety and worry with health education, enhance patient's

compliance and confidence toward chemotherapy. We present this case not only for its rarity, we also wish to provide a reference for nursing care of such patients in the future.

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### **PERFORATED JEJUNAL T-CELL LYMPHOMA IN A YOUNG ADULT MALE—A CASE REPORT**

**Kai-Chun Chen, RN, Cheng Hsin General Hospital, Taipei City; Kevin Tseng, MD, PhD, Wuri Lin Shin General Hospital, Taipei City; Shu-Ching Hsueh, MD, Cheng Hsin General Hospital, Taipei City**

*Category: Professional Development*

Tumors of the small intestine are remarkably rare; only 3% to 6% of gastrointestinal tumors and 1% of gastrointestinal malignancies arise from the small bowel. Primary lymphomas account for <2% of all gastrointestinal malignancies and 10%–20% of small bowel malignancies. They are more common in the ileum, consistent with the higher number of lymphocytes there. Perforation of intestinal lymphomas is extremely rare. Only few cases reported in the literature and mostly in patients between 50 to 70 years of age. We encountered a 32 year-old male with intestinal obstruction and persistent low grade fever. Explorative laparotomy performed. Obstructing jejunal tumor with perforation found with subphrenic abscess and regional peritonitis. Pathology report indicated the tumor to be malignant T-cell lymphoma. The patient received post-operative chemotherapy and remained tumor free one year later. We are presenting this case for its rarity and its early age of onset.

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### **TELEPHONE COUNSELING: PATIENTS' AND CAREGIVERS' NEEDS FROM A BRAZILIAN UNIVERSITY HOSPITAL**

**Edvane De Domenico, PhD, Paulista School of Nursing, Universidade Federal de São Paulo, São Paulo; Bruna Araújo, RN, Universidade Federal de São Paulo, São Paulo; Carla Kamada, RN, Universidade Federal de São Paulo, UNIFESP, São Paulo; Caroline Machado, RN, Universidade Federal de São Paulo, São Paulo; Flávia Ramos, RN, Universidade Federal de São Paulo, UNIFESP, São Paulo; Karina Stocco, RN, Universidade Federal de São Paulo, São Paulo**

*Category: Symptom Management and Palliative Care*

The University Extension Program Acolhe-Onco of the Federal University of São Paulo maintains a Telephone Counseling service with the participation of Oncology Nursing Residency Program. This activity



consists of offering a continuous communication channel for cancer patients on active outpatient treatment or follow-up. The objective was to quantify and characterize the main care demands of patients and caregivers who used the telephone counseling service. It is a retrospective, cross-sectional study. The data were obtained from the message registries (WhatsApp® or Messenger®) and phone calls received from a single mobile phone that is offered to all patients assisted at the São Paulo Hospital, oncology outpatient clinics, Sao Paulo (SP), Brazil, by nurses residents of the Acolhe-Onco Extension Program, from February 1 to July 21, 2019. Data were categorized according to the nature of the demands and descriptive statistics were used. 650 attendance records in the period. Of these, 343 (52.8%) were made through messages via WhatsApp, 50 (7.7%) by text message (SMS) and 257 via telephone calls (39.5%). The messages forwarded by application were: text, voice, photos and videos. The content of these records (n: 393) resulted in 5 groupings. a) Active search (from resident to patient): 94 (23.9%) messages to reinforce guidelines for reevaluation of the patient's condition. b) Signs, symptoms and self-care demands: 118 (30%), complaints of side effects from illness or treatment, doubts about taking medications and general uncertainties regarding self-care. Of these, 52 (44.1%) counseling resulted in guidance for the patient to go to the emergency department of reference, due to the risk situation. c) Administrative demand: 91 (23.1%) were related to losses or not scheduling appointments; lack of supply of medicines in the public distribution network; questions about attendance at other institutions (counter-reference). d) Emotional/Affective demands: 59 (15%), expressions of fear, hopelessness, distress, family problems, concern, anxiety, grief. e) End-of-life demands: 31 (7.9%), reporting death, thanking the staff or doubts about bureaucratic procedures when the death occurred at home. Counseling by digital writing resources was significantly higher. The number of consultations that resulted in the management of different problems demonstrates the importance of this resource for patient safety and navigation. INNOVATION: Learning opportunities for the resident. The results will be used to guide residents' education and improve patient/family care.

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### **CONTINUING EDUCATION COURSE ON IMMUNOTHERAPY NURSING FOR ONCOLOGY NURSES IN CHINA: SHARING**

### **AND INTEGRATING KNOWLEDGE FROM THE U.S.**

**Bingbing Feng, PhD, FZHCare Corporation, North Wales, PA; Bo Xu, RN, Cancer Foundation of China, Beijing; Huaping Liu, PhD, RN, FAAN, Peking Union Medical College, Beijing**

**Category: Professional Development**

On average, over 10,000 new cases of cancer were diagnosed every day in 2018, in China. As of September 2019, only 5 immunotherapeutic drugs (3 domestic and 2 from the US) were approved there. Out of the more than 4 million Chinese RNs, hundreds of thousands of them have routinely engaged in oncology patient care; however, just a fraction of them have been well-trained in the advancements in immunotherapy treatment and nursing. For optimal outcome of Continuing Education (CE) training for Chinese oncology nurses in this area, particularly with updated information from mature markets, it is important to ensure training materials are both cutting-edge and locally applicable, and the teaching faculties are familiar with practice environment in China and developed countries. For people working together on this project, many factors such as culture, communication, collaboration, roles and responsibilities, intellectual property, event planning and so on, also need to be properly communicated and managed. Oncology nursing experts from both China and US worked together to develop the content of the 3-day training course focusing on recent development and advancements in immunotherapy nursing care. The curriculum integrated knowledge from the US, systematically covered a wide range of topics from basic theories to adverse event management. It was approved as a 6-credit, National Level Category I (highest level) CME course in China, first of such recognition there. The inaugural training was conducted in August, 2019 in Beijing. Most of the 44 attendees were nursing professionals practicing in a clinical oncology setting, from more than 20 institutions such as cancer centers, tertiary and secondary general hospitals and nursing graduate schools in 10 provinces. Based on follow-up survey, the majority of attendees considered the course significantly broadened their perspective on immunotherapy and related nursing care, and strengthened their basic knowledge and clinical skills in treatment and patient care. It has achieved the goals of sharing US nursing practices in immunotherapy, incorporating certain American procedures into Chinese processes where appropriate, and enhancing knowledge and clinical skills for oncology nurses in China. This successful project may

serve as a reference for similar collaborative educational programs in the future.

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### **A SMART WAY TO GO: USING INTERNATIONAL AFFILIATION TO UNDERSTAND NEEDS OF AND IMPROVE CARE FOR OLDER REGIONAL AUSTRALIANS WITH CANCER**

**Lea Marshall, RN, Grampians Integrated Cancer Service, Ballarat, VIC; Carmel O’Kane, ONP, Wimmera Health Care Group, Horsham, VIC; Tracey Daffy, RN, Wimmera Health Care Group, Horsham, VIC**

**Category: Coordination of Care**

Like the USA, Australia has increasing numbers of older people with cancer due to the aging population. Unlike the USA, specific nurse-led initiatives in geriatric oncology models of care are rare. Our project outlines application of nursing goals developed during the Geriatric Oncology: Educating Nurses to Improve Quality Care (Funded by the National Institute of Health Grant #R25CA183723-01A1) program attended in the USA. The training on geriatric oncology principles and requisite nursing goal development to adapt to practice settings provided a model to improve nurses understanding of and care for older cancer patients in the Wimmera region of Victoria, Australia’s most south-eastern mainland state. Affiliation with and mentoring and support from R25 faculty and support staff encouraged our team to identify and implement three SMART goals. These were: introduction of a patient-completed geriatric screening tool to identify needs and guide care; linking specialist and generalist external providers via telehealth into the two-weekly supportive care multidisciplinary meetings (SCMDM) to discuss and plan care; and access to geriatric-oncology nurse education. The project pilot phase results are based on 81 patients discussed over 20 ½-hour meetings. A large dataset provides unique insight into patient demographics, self-rated health, cancer and geriatric feedback, and free text input on other problems and concerns. SCMDM discussion and referrals recommended by the team and accepted by patients is also recorded. Data is collected in the geriatric assessment categories of functional status, nutrition, medications, co-morbidities, social support, cognition and psychological health. Indicated functional status classification demonstrates that 27.50% are ‘fit’, 56.25% are ‘vulnerable’ and 16.25% are ‘frail’. Five fields provide this status score. Regional tumour stream coordinators, centralised specialist service nurse members and smaller, local health service non-cancer nurses dial into the SCMDM by

telehealth. Their unique understanding of discussed patients contributes to care recommendations and referrals. A one-day symposium at Australia’s annual cancer nurses’ congress had representation from all Australian states and New Zealand. Two R25 nurse members provided videos about the importance of geriatric-oncology knowledge and skills by cancer nurses. Evaluations inform future education directions. Support and mentoring from monthly R25 conference calls and email improved our confidence and commitment to this ongoing project. Despite some system differences, nurses’ commitment to improve care for older people with cancer is shared internationally.

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### **QUALITY OF LIFE, SOCIAL SUPPORT AND RELIGIOSITY OF PATIENTS DIAGNOSED WITH MULTIPLE MYELOMA**

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**Category: Psychosocial Dimensions of Care**

In developing countries there has been an increase in mortality from Multiple Myeloma (MM) over the last 20 years (1996–2015). Purpose: To evaluate the quality of life (QoL), social and religious indicators of patients diagnosed with MM and to correlate with sociodemographic and clinical characteristics. Method: cross-sectional, with outpatients followed at a public hospital in the city of São Paulo, Brazil. All patients diagnosed from September 2016 to September 2017 (N = 23) were included. Data collection instruments: (1) sociodemographic and clinical evaluation; (2) European Organization for Research and Treatment of Cancer Quality of Life Questionnaire; (3) Medical Outcomes Study Social Support Scale; (4) The Duke University Religion Index Instrument. Results: The majority of the patients were male (60.9%), married (73.9%), average age was 56.7 years, economic classes C and D (78.1%); from 1 to 8 years of schooling (52.2%), unemployed or retired (91.3%). QoL assessed in physical (44.1; 95% CI 32.0–56.0) and role performance (41.3; 95% CI 24.0–58.6) was worse, but it was better in cognitive function (69.6; 95% CI 58.4–80.8). Emotional support was higher in the affective (91; 95% CI 85.1–96.9) and material (90.9; 95% CI 84.0–97) domains. The intrinsic religiosity dimension

obtained a high score (9.74; 95% CI 8.6–10.9). Older patients revealed worse QoL in emotional function ( $p = 0.003$ ) due to financial difficulties ( $p = 0.009$ ). Individuals from lower economic classes (C2 and D) reported worse QoL in cognitive function ( $p = 0.04$ ), however, those from the higher economic classes (B2 and C1) reported higher organizational ( $p = 0.04$ ) and intrinsic religiosity ( $p = 0.03$ ), higher emotional support in the affective ( $p = 0.006$ ) and emotional ( $p = 0.005$ ) domains, positive social interactions ( $p = 0.005$ ) and for receiving help information ( $p = 0.002$ ). Men reported higher total emotional support scores ( $p = 0.02$ ), while women reported poorer QoL due to financial difficulties ( $p = 0.04$ ). Married patients reported greater total emotional support ( $p < 0.001$ ). The patients are vulnerable under the socioeconomic and clinical aspects, have high religiosity index, compromised QoL mainly in the physical function and role performance domains, despite having a high score in social support. The data revealed care needs that require a multidimensional and interdisciplinary intervention plan, considering the patient's vulnerabilities.

### 343 DEVELOPMENT OF A NURSING CHECKLIST AND PLAN OF ACTION FOCUSED ON PATIENTS' SUSCEPTIBILITY TO SKIN IMMUNE-RELATED ADVERSE EVENTS AND GRADE 1 SKIN ADVERSE EVENTS MANAGEMENT

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Category: Oncology Nursing Practice

The immunotherapy with checkpoint inhibitors agents had revolutionized cancer treatment by activating individual components of the immune system and increasing efficacy of the treatment while decreasing toxicity compared to chemotherapy agents. The most common irAE is the rash, one of the skin toxicities patients can develop. Despite the low incidence of immune-related adverse events (irAE), they can occur and cause treatment interruption and/or discontinuation if not promptly recognized and well-managed. In addition, combinations of immunotherapy with chemotherapy are approved, in United States and in Brazil, for the initial, or first-line, treatment of patients with metastatic non-small cell lung cancer whose tumors lack epidermal growth factor receptor

or anaplastic lymphoma kinase mutations, and can cause other skin adverse events (AE). Since nurses are the professionals that spend more time with patients when compared with others, they must be highly prepared to assist these patients. The objective was to define a nursing checklist and plan of action focused on patient's susceptibility to skin irAEs and grade 1 skin AE management as per Common Terminology Criteria for Adverse Events (CTCAE), version 5.0, to be incorporate to the assessment step of nursing process. Based on CTCAE v 5.0 and international guidelines for irAE management, together with an oncologist and a dermatologist, a check list for data collection during nursing assessment and a flow chart including guidelines for patient's referral to a dermatologist and nursing management were developed. Any patient with history of alopecia, bullous dermatitis, erythema multiforme and skin ulceration should be referred to a dermatologist and followed by multidisciplinary team. Patients with grade 1 dry skin, fat atrophy (insulin), hirsutism, hyperhidrosis, hypertrichosis, nail discoloration, nail loss, nail ridging, palmar-plantar erythrodysesthesia syndrome, photosensitivity, pruritus, purpura, rash acneiform, rash maculo-papular, skin atrophy, skin hyperpigmentation, skin hypopigmentation, telangiectasia, urticaria and other skin and subcutaneous tissue disorders (not mentioned above) should be managed by nurses and oncologists according to the flowchart developed in this project. Training nurses and implementing a checklist and flowchart for patient's assessment and management of skin AE is not usual however these actions could improve patient safety, quality of life and benefit from immunotherapy treatments. This checklist and flowchart could incorporate, in the near future, additional data to assess and manage the other irAEs.

### 358 COMPARISON OF UNMET SUPPORTIVE CARE NEEDS AND QUALITY OF LIFE AMONG NEWLY DIAGNOSED CANCER PATIENTS UNDERGOING DIFFERENT TREATMENTS

Yang Pei-Hsuan, Kaohsiung Medical University Hospital, Kaohsiung

Category: Treatment Modalities

Cancer has been ranked the first leading causes of death in Taiwan for 36 years and there is a high difference between unmet needs, quality of life and cancer patients undergoing different treatments. The objective was to compare unmet supportive care needs and quality of life in newly diagnosed cancer patients

receiving different treatments in Taiwan. A retrospective cross-sectional study design was used and subjects were recruited from outpatient departments at a large medical center in southern Taiwan. The Supportive Care Needs Survey–short form and EORTC QLQ-C30 were measured at six months after cancer diagnosis. Treatment was divided into four groups: chemoradiotherapy (CCRT), radiotherapy (RT), OP (operation) and target therapy (TT). Independent samples t-test, and ANOVA were used for statistical analysis. In total, 93 newly diagnosed cancer patients were enrolled. In terms of unmet supportive care needs, patients receiving CCRT have moderate to high levels of care needs ( $p = 0.042$ ) and their needs were significantly higher than those with TT ( $p = 0.031$ ) and CT ( $p = 0.046$ ). Psychological needs in CCRT were higher than those with CT ( $p = 0.033$ ) and TT ( $p = 0.033$ ). In the analysis of EORTC QLQ-C30, patients receiving CCRT showed significantly higher mean scores in the emotional ( $p = 0.001$ ) and the social functioning ( $p = 0.005$ ) on the functional scales, and in nausea ( $p = 0.010$ ) on the symptoms scales compared to other treatments (RT, OP, or TT). The data collected in this study provide a useful reference for providing individualized care for cancer patients undergoing treatment.

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### ONCOLOGY PATIENT SATISFACTION WITH NURSING CARE: TRANSCULTURAL ADAPTATION AND VALIDATION OF THE INSTRUMENT “QUALITY OF ONCOLOGY NURSING CARE SCALE”

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Category: Oncology Nursing Practice

The use of accurate and reliable measuring instruments provides a measurable results about the patient’s satisfaction and perception of the care received. The instrument Quality of Oncology Nursing Care Scale (QONCS), consists of 34 items in total, with 5 domains. The objective was to culturally adapt the instrument QONCS; test the validity and reliability of the instrument in the adapted version for the Portuguese language of Brazil; to evaluate patient satisfaction regarding the care provided by nurses in a referral hospital in the treatment of cancer; to describe the professional features of nurses who assisted the patients. This was a methodological, transversal and

quantitative study, developed in 2 stages. Stage 1 consisted in phases of cross-cultural adaptation. In stage 2, the instrument was first applied as a pilot test and, after alterations, it was reapplied in the validation case series in the hospitalization units of the oncology’s hospital, in the city of São Paulo, in the months of March and April of 2018. The construct validity was obtained through exploratory factorial analysis (AFE) and the convergent validity by the intraclass correlation coefficient (ICC), and the Patient Satisfaction Instrument (ISP). For reliability analysis, the Cronbach’s Alpha coefficient and, for stability, the test-retest, were used. The validation case, with 173 patients, was characterized by: 51.4% male, 53% aged over 60 years, 47.4% with education and 54.6% in the economic class B1 and B2. As for the hospitalization period, 74% were between 05 to 15 days. The AFE instrument presented an explanation of 69.6% of variance. Regarding reliability, the Cronbach’s Alpha ranged from 0.894 to 0.958 and for the test-retest, there was a significant difference in the following domains: being supported and confirmed ( $p < 0.001$ ); being valued ( $p < 0.001$ ); spiritual caring ( $p = 0.002$ ) and being respected ( $p = 0.007$ ). Regarding convergent validity, 4 domains showed a significant correlation with the ISP, except for the spiritual care domain. The sociodemographic and professional profile of nurses working in hospitalization units was characterized by: 79.2% female; 58.3% below or equal 34 years of age. Regarding the time of graduation and performance in the institution, 72.2% and 55.6% over 4 years, respectively. The QONCS-Brazilian version proved to be valid and reliable for reproducibility.

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### LEADERSHIP/MANAGEMENT/EDUCATION

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### MANAGERIAL PRACTICES THAT CONTRIBUTE TO MITIGATING NURSING TURNOVER INTENTIONS

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Category: Professional Development

The U.S. health care industry incurs a high level of employee turnover year over year, which results in significant costs for organizations in the sector. Specific to the field of nursing, some health care managers lack effective management strategies to successfully mitigate nursing turnover intentions to reduce organizational losses. The purpose of this single case study

was to explore the strategies health care managers used to mitigate nursing turnover intentions. The conceptual framework was social exchange theory. Data were collected using semistructured interviews. The targeted population included 9 managers from a company in the state of New Jersey who demonstrated successful strategies for mitigating nursing turnover intentions as evidenced by meeting 3 defined inclusion criteria. Interviews were conducted, recorded, transcribed, and member checked for accuracy. Data were analyzed using Yin's 5-step approach, that included compiling data, disassembling data, reassembling data, interpreting data, and concluding data. Three major themes were identified, which included individualization, communication, and development. Findings from this study may contribute to positive social change by providing health care managers with strategies they can use to decrease nursing turnover. Decreased nursing turnover may lead to increased nursing skills, improved patient outcomes, and a higher positive perception of care within the community, which could have a positive influence on organizational profitability and sustainability.

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#### **ONCOLOGY NURSING DIDACTIC: STANDARDIZING NEW NURSE EDUCATION FOR INPATIENT ONCOLOGY STAFF**

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[Category: Professional Development](#)

Huntsman Cancer Institute (HCI) is an NCI designated Comprehensive Cancer Center at the University of Utah that has four inpatient units, with 100 total beds. The four inpatient units include an intensive care, medical oncology, surgical oncology and bone marrow transplant/hematology unit. Ensuring all new registered nurses (RNs) receive adequate education upon hire is a challenge. A foundation that includes thorough education on the fundamentals of oncology nursing is imperative to their success. To address this educational need, each inpatient unit developed an individual course for new hires. However, this education model resulted in duplication of work and inefficient use of

time and resources. A new standardized education model was developed to streamline the delivery of education for newly hired RNs at HCI. The Oncology Nursing Didactic program will decrease budgeted RN class time, eliminate duplication, increase the amount of time available for educators to support staff on the unit, and standardize nursing practice throughout the hospital. Nurse Educators of each inpatient unit convened to review the existing curriculum. Overlapping content and duplication was identified, including central lines, blood administration, and documentation. After comparing and reviewing material, a new curriculum applicable for all inpatient units was developed. All inpatient RNs now attend the program together which consists of three weeks of combined classes, a chemotherapy class, a skills lab, and 1-2 weeks of unit specific clinical education. Educators rotate teaching the combined curriculum, which was approved by all inpatient managers and hospital administration. In the previous education model, each educator spent approximately 20 hours per month in preparation and teaching their unit didactic classes. In the new education model, each educator now spends approximately six hours per month in preparation and teaching in the standardized didactic course. An unexpected result was the reported comradery and connections built between class participants. As with all long standing education, it must be flexible to meet the ever changing needs in healthcare. Minor changes have been made to include advances in cancer therapy, evidence based practice, and updated hospital policies. Future goals include streamlining the inpatient didactic program with the organization's nurse residency program.

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#### **IDENTIFYING AND CLOSING GAPS IN PRACTICE: INPATIENT AND OUTPATIENT ONCOLOGY NURSING SKILLS DAY**

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[Category: Oncology Nursing Practice](#)

Oncology nursing is a highly specialized area of nursing practice and involves caring for complex,

high-acuity patients that cross multiple departments and care settings. Oncology patients are cared for in both inpatient and outpatient settings. A needs assessment showed differing clinical practices and training between both inpatient and outpatient oncology nurses. Both areas saw the need to provide consistent education to the nursing staff as extremely valuable. ONS encourages assessing and measuring competency levels, as well as addressing gaps in practice, so that nurses can deliver excellent care through the entire cancer trajectory. The purpose of this collaboration was to bring both inpatient and outpatient nursing together to ensure all staff was receiving consistent education and training. The inpatient oncology departments had initiated an annual skills day for the staff nurses in 2017. Skills included chemotherapy administration, emergency/oxygen management and other inpatient related skills. Both inpatient and outpatient areas also performed annual central venous access device (CVAD) competencies on an individual basis. Coordinators from the inpatient and outpatient oncology departments collaborated to develop a joint oncology nursing annual skills day for the cancer center. This collaboration was the first of its kind, with approximately 97% of 250 oncology nurses in attendance. With the new USP 800 changes, all nurses were trained and return demonstrated a small hazardous drug spill clean-up and management. The use of chemotherapy personal protective equipment (PPE) was tested as nurses demonstrated an independent double check and safety check when administering chemotherapy. Quizzes tested each nurse's knowledge for emergency response, chemotherapy, blood administration and hypersensitivity reactions. CVAD and CADD pump management were evaluated for the outpatient nurses. Collaboration of both nursing groups through the skills day training helped identify multiple different process improvement initiatives. Staff post survey results showed at 30-50% increase in level of knowledge for the highlighted topics. 75% of staff reported the skills day was effective in changing their current practice. Examples of process improvement opportunities included streamlining differences in CVAD management and policies between inpatient and outpatient, developing a hazardous drug PPE competency checklist aligning with the new USP 800 guidelines and institution policy, and continuing collaboration between inpatient and outpatient nursing to further standardize clinical policies and procedures.

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### TRANSITION OF MEDICAL-SURGICAL NURSE TO ONCOLOGY NURSE: EXPERIENCE FROM A COMMUNITY BASED HOSPITAL

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Category: Oncology Nursing Practice

Medical-surgical nursing education provides the foundation needed for understanding the principles of safe nursing care. Oncology nursing is a specialty that requires additional education to ensure that practitioners have a thorough understanding and heightened appreciation for the natural history of oncologic disease processes as well as the principles and practices that govern safe chemotherapy handling and administration and side effect management. A community based hospital in collaboration with a NCI designated comprehensive cancer center opened an oncology specialty unit to care for the local oncology patients. Experienced medical-surgical nurses and graduate nurses were hired to staff the new oncology unit. All staff received additional education to prepare them as oncology nurses, but they did not have the benefit of having an on-site experienced oncology nurse as a mentor. After opening the unit a chemotherapy error occurred that raised questions about the staffs' readiness to function independently as oncology nurses. The purpose was to develop and implement a remedial education/training program to facilitate medical-surgical nurses' transition to oncology nursing. An oncology clinical nurse specialist (CNS) was brought to the unit to assess staff readiness to function as oncology nurses. Previous education was reviewed and determined to be adequate in scope but lacking depth. Consequently, staff were ill-prepared to manage complex oncology nursing care and complex chemotherapy regimens. The CNS in collaboration with NCI cancer center nurse educators developed an intensive plan to reeducate staff members, validate skills, and supervise day-to-day performance. Weekly "oncology education rounds" were provided by an oncologist and CNS. During rounds the nurses learned about the natural history of diverse oncologic disease processes. In addition, the CNS worked on site for 9 months to mentor staff. Over a 9 month period with increased training and mentorship all nursing staff were able to validate skills and demonstrate competency in caring for complex patients, including difficult leukemia

regimens and other extensive protocols. Importantly, there have been no further chemotherapy administration errors. It is well-known that transitioning from medical-surgical nursing to a specialty like oncology nursing requires additional education and the acquisition of new competencies. Still the importance of mentoring nurses in transition should not be overlooked. Supervision in the practical application of oncology principles of practice is essential.

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#### **FROM IDEAS TO REALITY: 24 HOUR ACCESS TO OUTPATIENT ONCOLOGY CARE**

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*Category: Coordination of Care*

Providing timely and compassionate acute care for the oncology patient undergoing active treatment is best addressed by specially educated oncology nurse practitioners and nurses. Development of specific patient clinical criteria was utilized to identify a select oncology patient population. Patients identified within the clinical criteria were directed to a specialized unit within the hospital to receive triage and symptom management outside of traditional outpatient operating hours. The Oncology Care Unit (OCU) provides a specialized resource for the oncology service line in an academic medical center. The OCU opened in May of 2017 and has progressively expanded the hours of operation to its current 7 day/week/24 hour oversight managed by specialized oncology Nurse Practitioners. The clinical staff evaluates outpatients with urgent medical needs and supports interventions that decrease Emergency Department visits and inpatient admissions while reducing the risk of exposing immunocompromised patients to infection. The expansion of the OCU hours of operation required coordination with multiple departments, as we anticipated patient referrals from various entry points within the hospital and eventually the Health System to this specialized unit. Nurse Practitioners, oncology nurses and our physician partners, developed the admission criteria for patient identification. The clinical team, and the larger stakeholder group established weekly meetings to develop a list of goals that would benefit our patient population, and would serve to support hospital initiatives, such as reduction of readmission rates, timely patient throughput and ultimately the reduction of ED utilization for our cancer patient population. Providing 24 hour specialized clinical access to the oncology patient requires collaboration amongst multiple departments. The expansion of this

six bed outpatient area must have the infrastructure and hospital support to undertake a budget neutral initiative. The clinical team collected pertinent data from their patient population to support the expansion of the unit. This collected information ranged from patient diagnosis, reason for referral, length of stay, time of admission and disposition of the patient at the conclusion of their OCU visit. Increasing access to specialized oncology care is inherently a positive experience for patients and clinicians. Data analysis supports the overall goals of ED visit reduction by the oncology patients and a reduction in the inpatient oncology readmission rates.

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#### **EXPANSION OF A THERAPEUTIC INFUSION PROGRAM FROM AN ACADEMIC CENTER TO COMMUNITY BASED AMBULATORY SETTINGS**

**Toby Bressler, PhD, RN, OCN<sup>®</sup>, Mount Sinai–Mount Sinai Health System, New York, NY; Donna Berizzi, MSN, RN, OCN<sup>®</sup>, NEA-BC, Mount Sinai Hospital, New York, NY**

*Category: Coordination of Care*

Advances in technology have expanded and increased the scope and success of immunotherapy infusion therapy. Biologic, chemotherapy, blood and antimicrobial therapies are commonly administered in an ambulatory infusion setting to oncology and non-oncology patients. The ASCO/ONS guidelines for Chemotherapy Administration Safety Standards (2016) was expanded to include the delivery of biologics and the inclusion of safety standards to all treatment settings. A competent and experienced infusion nursing staff are the cornerstones of successful ambulatory infusion programs. We will discuss the planning and implementation of an infusion expansion program from one large tertiary academic infusion center to multiple community based infusion centers within the same healthcare system. The large infusion center described is headed by Nurse Practitioners and a medical director who specialize in non-oncologic diseases and occupies a free-standing building where pharmacy, laboratory, examination rooms, and finance are centralized for efficiency and convenience. When expanding our program, we created a smaller version of the larger center at each ambulatory community site. Each patient is seen by a nurse practitioner and nurse; who share data about the patient. Both the large and smaller centers offer 24-hour coverage for questions/emergencies. Treating a wide variety of diseases, the nursing team utilize

their experience and the center's intercommunication EMR system to choose drugs most suitable for outpatient use. Costs in the center run between 50%–60% lower than medications administered in an inpatient setting. Reimbursement, although difficult in the past, has improved considerably. Collaborative efforts with the administrative team, gaining prior authorization for all infusions prior to scheduling was integral to the success of this expansion program. All patients who transferred their care to the community setting, receive a follow-up phone call within 24 hours of their treatment, to monitor the patient experience. Safe provision of infusion therapy was assured through selection of appropriate patients, through zip code analysis, patient education, well-defined policies, and effective coordination of nursing and administrative services. Educational sessions and competencies for the ambulatory nursing staff was achieved in partnership with the interdisciplinary team. Advance practice nurses from the central site supported the smaller centers with onsite presence. The role of the NP to coordinate care, collect informed consent and medically manage patients, was integral to the success of this expansion program.

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### **LISTENING TO THE VOICES OF PATIENTS WITH CANCER: INCORPORATING PATIENT PARTICIPATION INTO THE PLANNING, DELIVERY AND EVALUATION OF ONCOLOGY CARE**

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*Category: Psychosocial Dimensions of Care*

Our healthcare system established a Patient and Family Advisory Committee in 2014 with the goal of assuring the best possible experience to patients who receive care within our Cancer Programs. The committee is comprised of patients, family members, and health system staff who work to strengthen communication and collaboration among patients, families, caregivers and staff. This committee relies on patient and family members to help shape the essential decisions regarding the patient experience. PFAC members also serve on a variety of hospital committee's such as the Patient Education Committee and the Quality Improvement Committee. Offering a patient-centered care approach is known to improve quality and increase patient satisfaction. Additionally,

providing a patient-centered approach has been linked to effective team performance which can lead to error reduction and thereby improve patient safety. Through thorough interviews, Gerteis et al, described the value of listening to patients and families and stated that patients want to be more integrally involved in decisions related to their care. The addition of our PFAC members into various committees, meetings and special events, has been helpful in building a truly patient-centered delivery of care, which has also been beneficial to other patients. Mount Sinai Downtown Cancer Centers will review how the addition of patient participation in established committees and meetings served to improve the quality of our events and our work. Incorporating patient feedback helped our entire staff to focus our efforts on why we all work in health care, to provide the highest quality care. PFAC members volunteer to join various committees. Some examples of patient participation include participation and leading National Healthcare Decisions Day events across our healthcare system, National Cancer Survivor's Day participation, Quality Improvement Committee meetings, staff meetings and special ceremonies. As a result of their participation in our National Healthcare Decisions Day, we had an increase of completed healthcare proxies in comparison to the previous year without PFAC involvement. Patient engagement and feedback has been instrumental for program design and some events have been led by patients. The presentation will review the benefits of patient engagement and participation to improve a cancer care delivery model as well as barriers we overcame in implementing this culture change.

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### **INFUSING ONCOLOGY IN A PERIOPERATIVE NURSE RESIDENCY PROGRAM**

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*Category: Oncology Nursing Practice*

Residency programs have been utilized to successfully onboard graduate nurses for many years. Until 2018, the Operating Room (OR) at a large Midwestern Comprehensive Cancer Hospital did not routinely hire graduate nurses without perioperative experience. For those with experience, who were surgical technologists, the OR collaborated with the Inpatient Nurse Residency program. However, this program did not fully meet the unique needs of the perioperative department nor the new graduate nurse.



In order to address the staffing shortages and prepare for future expansion, a Perioperative Oncology Nurse Residency program was developed to include non-experienced graduate nurses. The purpose of the program was to not only orient the nurse to perioperative patient care, but to incorporate oncology. The program focused on the oncology continuum of care, from diagnosis thru survivorship or end of life care. The typical orientation involved didactic learning and skill development through simulation for each of the surgical service lines such as General Surgery, Head & Neck, Neuro, GYN, GU, Plastic, Thoracic, and Orthopedic surgical patients. In order to infuse oncology into the residency program, several key changes were made. The residents attended outpatient clinics for each surgical service to observe the patients at various stages of their cancer care. This also built relationships between the surgeons and the graduate nurse. The residents listened to oncology surgeons discussing their surgical specialties that included diagnosis, treatment options, clinical trials and follow up care. They reviewed available evidence to increase their knowledge on oncologic diseases to prepare them for each specific surgical service. Since surgery is only one type of treatment for cancer, information on other modalities and non-surgical diseases were discussed. They gained knowledge regarding the diagnosis and treatment of leukemia, lymphoma and multiple myeloma. The residents attended programs on radiation therapy including brachytherapy, chemotherapy, biotherapy, and more. The program had six graduate nurses who started in July 2018. Five successfully completed the program in July 2019. One resigned due to relocation. The feedback from the residents, staff, leadership and physicians was overwhelmingly positive. The staff felt the residents were well prepared and knowledgeable. This program led to a successful integration of these graduate nurses into a highly specialized oncology Operating Room.

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### **TRANSITION INTO PRACTICE: EVALUATING THE EXPERIENCE OF ONCOLOGY NEW GRADUATE NURSE RESIDENTS**

**Barbara Cashavelly, RN, DNP, NE-BC, Massachusetts General Hospital, Boston, MA**

**Category:** Professional Development

New graduate nurses face many challenges during the transition into professional nursing practice. The impacts on new graduate nurses are higher patient acuity, reduced length of stay, staffing shortages and complex healthcare environments. Research has

shown knowledge and confidence, lack of experience, clinical and organizational skills, difficulty managing large patient workloads, and difficulty collaborating with other disciplines are challenges experienced by the new graduate nurse. These stressors can adversely impact a successful transition into professional nursing practice, which can impact clinical care, patient safety, job satisfaction and retention. Studies have shown that graduate nurse residency programs foster a successful transition into professional nursing practice through support, experiential learning, education and mentorship. The purpose of this study was to examine the transition experience of oncology new graduate nurses who participated in a six-month oncology new graduate nurse residency program. This project used a non-experimental, pre-post descriptive design study. The Casey-Fink Graduate Nurse Experience Survey was used to conduct a one-year follow-up to survey participants who completed the 2017 oncology new graduate nurse residency program. Demographics, job satisfaction and open-ended questions related to transition difficulties, support and integration, and work environment were reported. The analysis indicated a decrease in difficulty with prioritizing patient care needs ( $p=0.008$ ), feeling overwhelmed with patient care responsibilities and workload ( $p=0.005$ ), and improved organizational skills ( $p=0.004$ ). There was also a decrease in financial stress ( $p=0.006$ ) and job performance ( $p=0.032$ ). Patient safety and stress were correlated ( $r=-0.20$ ,  $p=0.053$ ). Job satisfaction, socialization, patients and families, ongoing learning, and positive work environment were perceived to be most satisfying. Unit socialization and orientation were perceived to be important. Peer support, patients and families, ongoing learning, and positive work environment were perceived to be most satisfying. The quantitative survey results revealed that the new graduate oncology nurses experience perceived improved patient safety as a result of improved job performance related to organizational skills and prioritizing patient care needs. that the residency program supported the successful transition of the oncology new graduate nurse residents. The implementation of an oncology new graduate nurse residency program can support the transition of the new graduate nurse on an oncology unit by providing oncology-specific core curriculum, skills training, preceptor support and a strong oncology foundation.

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### **A NEW BREED OF ONCOLOGY NURSES**

**Cathy Cerami, RN, BSN, OCN®, Lehigh Valley Hospital,**

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Category: Professional Development

Statistically, Cancer diagnosis and new evolving oncology treatments will increase in the coming years. As more genetic testing becomes available, more targeted treatment options will be developed as well. For these reasons, the need for experienced oncology nurses is increasing while the availability of the experienced oncology nurse is decreasing. As the availability of experienced oncology nurses is decreasing, management must look outside the box and change the criteria for recruitment of new nurses to fill the demand. The purpose was to educate Non Oncology RN to become Oncology Nurse. Once the nurse goes thru the interview process and is hired, they will initially begin an intensive 3-4 week mentoring process. They initially go in with the provider they will be working with, the expectation is that as the provider explains the cancer diagnosis to the patient, the new hire can learn along, in simple understandable terms. After one week the new is paired with an experienced oncology nurse. Here they will work side by side learning chemotherapy treatment plans, targeted therapy, and Immunotherapy. These nurses will learn telephone triage skills and management of treatment side effects. The nurses will attend 24 hours of oncology class with our oncology nurse educators. Once the intensive side by side mentorship decreases the mentor will always be available to the new oncology nurse for support and guidance. In addition to the above, they will attend a Cancer Institute orientation and be exposed to the different oncology services offered thru the Cancer Institute. Each nurse will have their individualized, personalized learning experience based on their own needs. After our nurses are on boarded, there is a 30-60-90 day follow up with the Clinic Managers to review their process and address any concerns. Evaluations are done after the oncology course to measure the effectiveness of the course compared to the objectives. Documentation supports that participants felt this class was helpful in the understanding and management of the oncology patient. There is weekly verbal feedback between the clinical manager, physicians and mentor to discuss their progress and address concerns. We have shown that a nurse with no oncology background, if on boarded and mentored successfully, can thrive and become an excellent oncology nurse.

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## SELF-CARE EFFICACY MEDIATED THE INFLUENCE OF HEALTHCARE PROVIDER-

## PATIENT COMMUNICATION ON PSYCHOLOGICAL DISTRESS FOR PATIENTS WITH GASTROINTESTINAL CANCERS

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Category: Psychosocial Dimensions of Care

The objective was to study the mediating effect of self-care efficacy on the relationship between healthcare provider-patient communication and psychological distress for patients with gastrointestinal cancers. Most of patients diagnosed with gastrointestinal cancers are at the advanced stages and have high symptom burdens and psychological distress, which usually associated with poorer quality of life and shorter survival time. Effective healthcare provider-patient communication can help patients understand the diagnosis, treatment, and prognosis, encourage patients to get involved in treatment-related decisions, and aid patients to reduce psychosocial distress. However, patients reported low communication satisfaction on helping them manage psychological distress. The factors and mechanisms that link communication and patients' psychological distress are still unknown. Self-care efficacy refers to an individual's confidence to perform self-care behaviors to achieve specific performance in certain situation. Patients not only need knowledge and skills, but also need high self-care efficacy to make them believe in their ability to take care of their physical, psychological, social and spiritual wellbeing. It also remains unknown whether self-care efficacy play a mediating role of associations of healthcare provider-patient communication with psychological distress among patients with gastrointestinal cancers. A cross-sectional study was conducted between March 2018 and May 2019 in South China. 219 patients with gastrointestinal cancers reported healthcare provider-patient communication, self-efficacy, and psychological distress using the Revised Physician-Patients Communication scale, Strategies Used by People to Promote Health (SUPPH), and Distress Thermometer (DT), respectively. Mediation analysis was conducted for the study objectives. Mean scores of healthcare provider-patient communication, self-efficacy, and psychological distress were 89.93, 93.91, and 3.15; 41.6% patients showed

positive psychological distress ( $DT \geq 4$ ). Healthcare provider-patient communication showed negative correlation with psychological distress ( $p = 0.01$ ); patient-reported performance status showed negative impact on self-care efficacy ( $p < 0.001$ ) and positive impact on psychological distress ( $p = 0.005$ ). Patient self-care efficacy completely mediated the relationship between care healthcare provider-patient communication and psychological distress ( $p = 0.34$ ) controlling for patient-reported performance status. Self-care efficacy showed complete mediation of the relationship between healthcare provider-patient communication and psychological distress. Intervention programs strengthening self-care efficacy via healthcare provider-patient communication should be designed to relieve patient psychological distress. This is the first time to explore the mediating effect of self-care efficacy on the relationship between healthcare provider-patient communication and psychological distress among Chinese patients with gastrointestinal cancers.

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### **A MODEL FOR DNP PROJECTS AND PHD RESEARCH IN ONCOLOGY**

**Cynthia Chernecky, PhD, AOCN<sup>®</sup>, FAAN, Augusta University, Augusta, GA; Julie Zadinsky, PhD, Augusta University, Augusta, GA**

**Category: Professional Development**

Research models that include a focus on technology or product are critical for oncology research and practice. In 2009, the Federal Coordinating Council for Comparative Effectiveness Research (CER) noted a heightened need to consider the impact of technology on clinical events, mortality and quality of life, all of which affect the oncology patient. The new Healthcare and Technology Synergy (HATS) model includes three major variables: patient, product, and practice that represents a synergy between these three variables, with each one affecting and being affected by each other. These variables exist within a total healthcare environment throughout oncology care (preventive care, acute and chronic care, home care, rehabilitation, end-of-life) and need to be addressed for research studies and clinical projects. The purposes of this review were to evaluate a new clinical research and practice model that focuses on patient, product and practice determinants of health within multiple complex systems and review the use of the HATS model in research and practice and its applicability to oncology populations across the lifespan. The seminal HATS model article, 2013, has generated

interest within five countries with 143 total views nationally (United States) and internationally (Australia, Canada, China, Ireland). Two publications used the HATS model as a research framework in medicine on reduction of central line-associated bloodstream infections in hematologic patients. Three publications used the model in oncology nursing practice improvement projects, assessments, and practice. The HATS model has generated significant interest and use in research and practice in both oncology nursing and medicine. The HATS model is applicable to diverse oncology populations across the lifespan in many areas of oncology research such as bloodstream infections, urinary infections, hyperglycemia, targeted therapy side effects, ventilator assisted pneumonia, safety, and patient and product outcomes. The HATS model is useful to doctorally prepared researchers and clinicians in both oncology nursing and medicine globally in today's product-dependent healthcare environment where it is important to determine comparative effectiveness, healthcare outcomes, the control of side effects and costs. The HATS model is ideal for use in multi-site research involving oncology nursing and medical assessments including those of manufacturers' products and their influence on oncology patient outcomes. New model for oncology research and projects useful from prevention to end-of-life.

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### **MANAGING A NURSE CONTINUING EDUCATION FUND: EXPERIENCES OF A NURSE PROFESSIONAL PRACTICE COUNCIL**

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**Category: Professional Development**

Oncology nurses need opportunities to learn about innovative treatments, new patient management techniques and updated best practice guidelines. Nursing licensure and oncology certification require documented CEU's. Many of these educational activities require fees that prohibit nurses from participating. The nursing Professional Practice Council (PPC) which represents approximately 100 nurses at our outpatient cancer center was charged with managing a monetary

donation from a generous patient which was directed to benefit nurse development. In 2015 we established the Nurse Continuing Education Fund as a resource available to outpatient oncology nursing staff interested in financial support to attend professional development activities. We designed an educational pamphlet for patients and worked with nursing leadership to target valid activities. To meet our goal of giving every nurse the opportunity to benefit from this fund several steps were involved. Initially, application guidelines were established by the PPC and presented to eligible staff. Applications for funding were reviewed at our monthly PPC meetings and final approval granted by the clinical director. If approved, nurses were required to document attendance, provide a registration receipt for reimbursement purposes and also to prepare a brief presentation to share with peers upon return. Final reimbursement was coordinated by the PPC clinical facilitator and finance department. Each year we have successfully supported 15–20 nurse requests for financial support to attend a variety of seminars including ONS Congress and local meetings. Staff have been able to acquire required CEU's and develop networking and presentation skills. Challenges involve sustaining the fund balance while providing equal opportunity to all nurses. We have amended our guidelines several times and also have worked to fundraise and grow relationships with current and future donors. We raise awareness of this fund each year by sponsoring our own free CEU activity where nurses who have benefited from the fund present on topics they found of interest. The PPC feels fortunate to have the support and confidence of the cancer center leaders and staff and works diligently each month to respectfully manage this fund which is a product of patient and staff donations. We strive to give more nurses the benefit of free or reduced cost educational activities as they enhance their knowledge and personal commitment to the oncology nursing profession.

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### **WORKING IMPAIRED—IT COULD HAPPEN TO YOU!**

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Category: Professional Development

The 'opioid crisis' is a very current and intense topic in many forums—political arenas, healthcare settings, and communities of all socioeconomic levels. The profession of nursing has been impacted as well. A significant percentage of nurses work while impaired and team members and leadership often do not know

how to address the issue. For example, in the state of South Carolina, per the South Carolina Recovering Professional Program [SCRPP], 10% of RNs will have a problem with addiction while working. Also, 20% of RNs will have issues with drugs and alcohol at some point during their career. The SCRPP is a confidential referral and monitoring program for licensed health care professionals who are struggling with addiction and have had issues with working while impaired. They are also the governing body used by the South Carolina Board of Nursing when a nurse is reported. Unfortunately, resources for nurses who have problems with addiction or for staff and leadership who work with impaired staff are frequently not readily available. Recently, the South Carolina Nurses Association sought out a speaker who could 'talk from the heart' about her experience of working while impaired. This nurse was reported to the SC Board of Nursing and also required to sign a five-year contract with SCRPP that correspondingly included three months of rehabilitation away from her family. The significance of hearing about what she went through and her ongoing road of recovery cannot be understated. By recounting her harrowing experience, it was the hope for her to be a resource for team members and leadership on how to manage such situations when they occur in their settings. So far, this nurse has presented two more times and has another presentation scheduled and is part of a Capstone project. It will also be her hospital-wide RN III project for 2020. In conclusion, addiction, like any chronic illness, is a disease of the public. Resources and references on how to address a nurse who is working while impaired and to support nurses returning to practice when in recovery should be readily available to all staff and leadership. The accessibility of these resources also assists to ensure patient safety as well as allow for a nondiscriminatory work environment.

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### **ESCAPING THE BOREDOM OF TRADITIONAL LEARNING FOR ONCOLOGY NURSES**

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Category: Professional Development

It is challenging to educate oncology nurses in an interactive and engaging way. Traditional passive

learning, lecture and power points, does not engage learners in an interactive format. Adult learners prefer active learning styles and appreciate the use of technology and game based learning. The purpose of this project was to use an escape room model to educate nurses on how to recognize and manage patients that are experiencing an oncology emergency. Identifying oncology emergencies is a low-frequency, high-risk skill. The goal of this project was to measure the learner's ability to retain the education. Four Oncology emergencies escape rooms were created: spinal cord compression, tumor lysis syndrome, disseminated intravascular coagulopathy and neurotoxicity. The objectives for each escape room were identification, interventions and nursing strategies. This event included nurses from multiple oncology subspecialties encouraging team work and care across the continuum. Evaluations revealed that 89% of learners agreed that an escape the room format enhanced their learning; 94% of learners agreed that an escape the room format made learning more engaging and interesting; and 89% of learners preferred escape room format over traditional methods of education such as lecture or power point. Post surveys revealed that the participants retained information related to identification and management of selected oncology emergencies. The escape room format was successful in providing education about oncology emergencies. The learners were required to collaborate and use critical thinking to "escape the room". This active learning style incorporated visual, auditory, tactile, print, interactive and kinesthetic modalities. Learners expressed excitement in the use of this format and stated it encouraged intra-facility collegiality.

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### **ORIENTATION TOOLKITS: A RESOURCE FOR NEWLY HIRED AMBULATORY ONCOLOGY NURSES**

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Category: Oncology Nursing Practice

Nursing orientation is the time where new hires, whether a new nurse or a seasoned one, obtain the bulk of information needed for their job. This information includes, but is not limited to, policy/procedure

for day to day practice, organizational structure, and chain of command. There was an identified need to develop a tool to introduce a new hire nurse to the ambulatory oncology infusion units. Our team sought to provide the same orientation experience to these individuals while providing them the tools and information needed to succeed. There were approximately fifteen new hires in 2016–2017 to the NCI-designated Comprehensive Cancer Center's ambulatory infusion unit. While working with these new hires it became apparent that there was a need for more information specific to the daily workflow. An orientation toolkit had been developed recently by an inpatient medical RN which provided more detailed information on the unit where the new hire was going to be working. A team of ambulatory infusion nurses decided that this toolkit could be adapted to their daily workflow. The toolkit was modified to optimize productivity, nurse's comfort level and patient safety. Modifications to the toolkit included: contact information for providers/departments in the building that are regularly called; available resources; a checklist of the required documentation; tip sheets for various procedures the new hire may or may not be comfortable performing without a little assistance as certain procedures are seen much less frequently than others; direction on how to find relevant policies and procedures that are referenced quite frequently; a copy of the hypersensitivity reaction flowchart; a badge buddy for suspected extravasations and how to manage them. This modified toolkit has been positively accepted by both the new hires and the preceptors. Many preceptors have spoken up about how this toolkit has helped streamline the orientation process to prevent needless time wasted looking for some of these various items. This toolkit will be maintained on a regular basis to ensure that nothing becomes outdated. During a normal check in orientation meeting with the orientees, nurse educator, nursing leadership and preceptors at week five it was noted by both what an asset the toolkit was to keeping the orientation flowing smoothly as everything was right at their fingertips.

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### **THORACIC MEDICAL ONCOLOGY COMPETENCY BASED ORIENTATIONS (CBO) FOR THE ONCOLOGY ADVANCED PRACTICE PROVIDER (APP)**

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Category: Professional Development

CBO plans are a vital component in the onboarding and mentorship of newly hired and seasoned APPs. A CBO program is used to provide evidence of the APP's ability to perform the expectations of the role. A generic APP CBO onboarding plan was initially developed by the Advanced Practice Nurse (APN) Council at Yale, which defined the five pillars of competency: professionalism, systems based practice, patient care/procedures, medical knowledge, and practice based learning and improvement. In 2018, thoracic oncology APPs at Smilow Cancer Hospital @ Yale recognized that additional competencies were necessary for successful transition into practice. The thoracic oncology APPs enhanced the existing CBO by delineating disease specific knowledge and skills required to advance the thoracic oncology APP from novice to expert. The CBO will be applied at onboarding and with each yearly performance review. Thoracic oncology competencies include: knowledge of molecular profiling, understanding of treatment regimens (ie. immunotherapy, targeted therapy, multi-modality combinations), knowledge of treatment sequencing, management of patients on clinical trials, management of treatment and disease related effects, management of oncologic emergencies, smoking cessation, patient/caregiver education about adherence to oral therapeutics and psychosocial support of the patient and family from diagnosis through survivorship and end of life. In addition, thoracic APP competency supports coordination and collaboration between multiple disciplines such as surgery, radiation oncology, pulmonary, palliative care, nutrition and social work. The thoracic oncology CBO evaluates the APPs initial and ongoing acquisition and mastery of competencies. It provides a structured framework to identify areas for education and improvement. The thoracic oncology CBO aims to provide objective measures of APP role mastery. The thoracic oncology CBO assists APPs in adapting to practice settings, quantifies competencies and identifies knowledge gaps. These guide the development of a focused learning pathway to ensure mastery. CBOs offer numerous advantages for the APP mentors and hires. They provide clear guidelines regarding competency expectations which are ongoing and can decrease the amount of time spent in orientation for more experienced/skilled APPs.

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## ONCOLOGY BRIDGE PROGRAM: MEETING THE EDUCATIONAL NEEDS OF NEW TO PRACTICE ONCOLOGY NURSES

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Category: Professional Development

A large academic medical center sought to improve the transition of new to practice nurses to specialty care programs. Oncology was identified as one of the targeted areas. The "Bridge Program" was developed by key nursing stakeholders including the Director of Oncology Nursing Education under the direction of the CNO. The purpose was to allow new to practice nurses to have multiple and varied opportunities to become competent cancer nurses within a 24 week period. Preceptors for the "Bridge Program" received additional education to drive outcomes. The oncology bridge program didactic content was developed based on the ONS Core Curriculum for Oncology Nursing. The educational processes engaged oncology nurses from across the cancer center to highlight not only their knowledge but also their expertise within the care teams (melanoma, breast, cancer genetics etc). Additionally, this process introduced the new oncology nurses to clinical resources within the cancer center. The new to practice nurses included staff from BMT, inpatient oncology and an outpatient practice nurse. The oncology portion of the program was embedded within other programs as the BMT unit is a critical care unit and the inpatient unit includes telemetry beds. The program allowed for the oncology bridge nurses to complete the ONS/ONCC Chemotherapy Immunotherapy Certificate Course during the 24 weeks. The clinical practicum for these nurses were completed in the outpatient Oncology Infusion Center, which again allow the nurses exposure outside of their assign clinical area and to see a broader view of cancer care. Evaluation of the program is based on weekly preceptee/preceptor evaluations. Additionally, as part of the program, the new to practice oncology nurse receives a one year membership to ONS. This allows for continual professional development and afford the group opportunities for journal clubs and continuing education. This stressed the important of cancer nursing as a specialty at the national level. The expectation is that these nurses will be certified as OCNs when they meet the clinical timeline criteria. This innovative program allows for the development of a new generation of cancer nurses within the context of a truly professional model.

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### **ONCOLOGY NURSING WITHIN THE ENTERPRISE: COMING TOGETHER TO PROVIDE QUALITY CARE**

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Category: Oncology Nursing Practice

As cancer centers grow to include various hospitals within enterprises, there is an obvious need for oncology nurses to begin to address clinical and professional issues that go beyond their individual institutions. The purpose is to eliminate unnecessary variations at individual sites and develop and come to an agreement on policy and procedures that are evidence based and best practices. This process has begun within an enterprise that includes a large academic medical center and hospitals both in the suburbs of this institution and hospitals in a second state. The nurse executives of this enterprise recognized the need to assure continuity of nursing practice within the various hospitals. This process initially started within what was defined as the nursing Enterprise Practice Council which included nursing leaders and staff from all of the institutions in the enterprise. This council defined a vision which included standardizing nursing practice and its resulting impact on patient care across the divisions. These meetings are held on a rotating basis at the different hospitals allowing all to get a better understanding of the facilities and showcase the strengths of the hosting organization. It became very clear from this group that oncology nurses, as well as other nursing specialties, had very unique needs that needed to be addressed. From this initial group came the sub committee of oncology enterprise nurses. An oncology nurse representative from each institution was identified for inclusion on this committee. The first two projects that were initiated by the group were the processes surrounding chemotherapy policies and procedures and care of the patient with neutropenia. Of interest, as began this journey, institutions were beginning to address the same issues, so with this new process, redundancy was eliminated. This innovative process allowed for collaboration among nurses and for all to see that everyone had something to add to the process. The goal as this moves forward is continued collaboration and address practice to support evidence based practice in cancer care throughout the enterprise.

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### **STANDARDIZED WORKFLOW FOR CHEMOTHERAPY VERIFICATION AND ADMINISTRATION**

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Category: Oncology Nursing Practice

Chemotherapy errors occur at a rate of 4 in 1,000 per written orders. They can result in severe harm given their narrow therapeutic index. At a large academic medical center, the chemotherapy resource nurse conducted a gap analysis on the chemotherapy verification workflow in an inpatient hematology/stem cell transplantation unit. The results revealed nurses varying practices in the initial and ongoing verification as well as implementation of the oncology treatment plan. Potential and actual errors have resulted from inconsistent practice such as delays in verification of the treatment plan, implementation of orders, and inaccurate dosing administration. A needs assessment was performed to identify the current state using two nursing surveys. The first survey measured knowledge and current understanding of practices regarding the workflow for chemotherapy treatment plan. The second survey identified the current state of nursing workflow in verifying and implementing the oncology treatment plan. Review of the results of the nursing surveys confirmed gaps between their knowledge and the required standard of chemotherapy administration. Qsen competencies were implemented to assess their current knowledge of BSA calculation and chemotherapy dosing using skills validation. Focus groups were held to gather additional data on various practices of the treatment plan verification process. These focus groups consisted of open dialogue to explore the rationales of their decision-making process in verifying treatment plans. Conclusion: An oncology treatment plan verification workflow was redesigned in collaboration with key stakeholders which included the Quality Improvement Specialist, nursing leadership, frontline staff, and Unit Practice Council. The oncology treatment plan verification workflow identified the responsibility of the nurse in each step of the workflow. Results of the nursing surveys will be presented to the staff and the Unit Practice Council with the purpose of designing resource tools, developing educational materials, and collecting the staff's input regarding the proposed oncology treatment plan verification workflow. Future

actions will include re-assessment of nursing practices in the verification and implementation of the oncology treatment plan, its ongoing challenges, and rate of adherence to the oncology treatment plan workflow.

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### **TELEPHONE TRIAGE AND VIRTUAL TELEHEALTH CARE: THE POWER TO PREPARE AMBULATORY ONCOLOGY NURSES THROUGH COMPETENCY VALIDATION**

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Category: Professional Development

Telephonic virtual assessments, triage, and telehealth communication is the growing trend in the outpatient setting and contemporary clinical nursing requires key skills to manage patient needs. Continual patient access to care via electronic communication patient portals or call centers presents challenges to oncology nurses for efficient and competent management of patient priority problems, timely triage disposition, clear interdisciplinary communication, and care management. Oncology nurses' telehealth effectiveness impacts patient safety, clinical outcomes, healthcare costs, and patient satisfaction. Clinical nurses in the ambulatory setting, autonomously manage messages after being initially trained regarding specialty clinical knowledge and clinical navigation of the electronic medical record, including the patient and call center messaging portal. Variability in communication and assessment abilities were notable and defined the need for further competency validation in patient triage skills. Forty clinical nurses across outpatient oncology subspecialties were provided a training module to review principles of triage and introduce a mnemonic tool for data collection. Two options for competency validation were offered as part of the required annual review process: either a small group facilitated discussion with case-based role play, or a written response to a generic oncology case study requiring clinical judgment with a SBAR (Situation, Background, Assessment, Recommendation) documentation note. The nurses' experience with this competency validation was generally well received, especially the components of small group discussion and the resource tool for systematic assessment and documentation. Variability in demonstration of skill, some gaps in practice, and concerns regarding practice scope with the SBAR communication were noted in this validation method. Follow up conversations were conducted with provider and nursing leadership to plan future strategies for assessing staff development perceived needs, define opportunities for

practice improvement and refine competency validation methods. The process of competency validation via small group or independent case study responses provided meaningful insight into the practice of triage and telehealth among ambulatory nurses. Most importantly, the tool served to an initial methodology for affirming the need for further staff development and strategies to enable and validate best practices in telehealth oncology nursing.

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### **PASSIONATE AND POWERFUL CHEMOTHERAPY TRAINING WITH SKILLS PRACTICUM INTEGRATED INTO CLASSROOM INSTRUCTION**

Linda Dial, RN, MN, AOCN®, ACNS-BC, Vanderbilt University Medical Center, Nashville, TN; Judy Johnson, RN, MSN, OCN®, BMTCN®, Vanderbilt University Medical Center, Nashville, TN

Category: Professional Development

Do you see glazed, tired eyes of the learners by the end of your presentations for chemotherapy training? Do you wonder if the didactic content transfers to initial clinical practice? If that is the case, try a novel approach that empowers nurses with increased confidence and competency. Instead of clinical practicum at the conclusion of the course, immediately integrating the practice of content increases learner retention, engagement and satisfaction. Four years ago, we initiated the Essentials of Chemotherapy for the Oncology Nurse course. Following two days of presentations and case studies, we offered a 4 hour skills lab. Learners seemed fatigued and overwhelmed with content each day. To improve the experience, we redesigned the curriculum to allow for integration of hands on and critical thinking skill application during each of the 3 days of exemplar and content presentations. Redesign of the course and skills lab allowed for timely reinforcement of lecture content and institutional policies/practices with case study based, hands-on experiences during each of the skills stations. There were 5 skill practicums dispersed over 3 days of classroom content: 1.) double independent verification practices, donning PPE, priming closed system safety devices 2) order review/release and documentation guidelines in EPIC 3) simulated spill management, 4) simulated peripheral vesicant administration safety processes and extravasation management, 5) patient education and teach-back with standardized patients in simulation lab, followed by immediate feedback and debrief by patient, peer partner, and instructor. Dramatic learner benefits due to timely kinesthetic learning and



critical thinking opportunities were evident with the curriculum changes. Integrated practicum experiences increased success on the course tests and nurses' skill and confidence following simulation in a safe environment. The palpable energy and engagement in learning during the simulation sessions was noted immediately by the instructors and reflected in the learner course evaluations. The experience of learners practicing delivery of chemotherapy patient education and use of teach-back has been stated to be transformative to many learners and created a preparatory realism for chemotherapy clinical practice. Significant improvement in learning by simulation and skills practice was demonstrated by a change in the sequence of practicum experiences integrated into the 3-day course curriculum. Kinesthetic learning with immediate feedback in a simulated setting increased novice nurses' beginning chemotherapy skills and confidence.

## 112 HEALING CIRCLES FOR NURSES HELP RECONNECT TO THE PROFESSION AND RENEW RELATIONSHIPS WITH ONESELF AND ONE ANOTHER

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Category: Professional Development

Today as in decades past, nurses and other healthcare professionals are suffering from "burn out." Oncology nurses must cope with ever changing complex protocols and less time with patients. Their relationships with patients are often cut short by patients' mortality and family grief which weighs heavy on hearts many. The hallmark of "burn out" is a lack of connection to the profession and to one's colleagues. Our profession is continually looking for ways to improve communication, deep, compassionate listening, team building and other modalities supportive of care. The circle is an ancient communication tool in many cultures, and it is an innovative approach that provides nurses with a way to revitalize their practice and find their voice. Nurses have begun to create "healing circles" not only for patients but for their nurse colleagues. Using mindfulness skills to enhance intentional self-care, skillful communication and to practice relationship centered care, in doing this healing circles facilitate reconnection to the profession and to each other by teaching/learning self-awareness, trust, leadership skills, comfort, conflict resolution along with compassion, and support for each other. Using Christina Baldwin and Ann Linnea's work we learn that circles are a way of practicing connection, developing trust, reciprocity

and authenticity thus building stronger professional relationships which as a result can improve job satisfaction and better patient care. Nurses' Healing Circles started in Washington state, and have begun in California, Washington DC, Houston and British Columbia. Healing Circles is a learning community of people bound together by a shared purpose, shared values, and an intuitive sense that we belong. Circles provide an opportunity to deepen the capacity to heal, alleviate suffering, and find meaning in work and daily life. The practices of a Healing Circles involve listening with attention, speaking with intention, and tending to the well-being of the whole person. Circles can be used formally as a shared grief experience, or informally as part of a huddle. In this presentation, nurses will learn different ways of starting circles with their colleagues and will observe a "huddle" healing circle of 2.

## 113 ENVIRONMENTAL CONTRIBUTORS TO CANCER: REDUCING RISKS FROM ENVIRONMENTAL EXPOSURES TO EVERYDAY CHEMICALS, AND EXTREMELY LOW-LEVEL ELECTROMAGNETIC FREQUENCIES

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Category: Oncology Nursing Practice

Nurses routinely coach patients about prevention in terms of nutrition, exercise, and not smoking. This relatively new area of prevention can be added to their knowledge base for individual and group teaching. Oncology nurses are trusted, caring experts which gives them a unique opportunity to educate patients, families and communities about how to decrease the risk of developing cancer caused by the environment in which they live and work. Exposure to chemicals and low-level electromagnetic radiation contribute to the cause of many cancers and tumor growth with previously unknown etiologies. The public thinks chemicals are tested for safety before going on the market, but unfortunately that is NOT the case. Most chemicals in use today have not been studied for their links to cancer in humans. Unknowingly, people are exposed to toxic chemicals in their workplace, in their homes from specific consumer products, and in their everyday environment from exposure to water and air pollutants.

Some exposures include cleaning products, pesticides, anti-microbials, non-stick pans, preservatives in food, plastic containers, air fresheners, and many more. In addition, we are also exposed to electromagnetic fields from high power lines and wireless radiation from cell phones. Many of the chemicals are considered Endocrine Disrupting Compounds (EDCs) because they mimic hormones linked to cancer. Dozens of these chemicals and cell phone radiation have been classified by the World Health Organization's International Agency for Research on Cancer (IARC) as "known," "probable" or "possible" human carcinogens and/or the by National Toxicology Program (NTP) within the National Institutes of Health (NIH) as "clear evidence of cancer" or "some evidence of cancer." Through this presentation, nurses will understand how these chemicals and radiation exposures contribute to cancer risk and where they are found in different environments. Simple resource lists of known EDCs and environmental/occupational carcinogens, which nurses can access online will be shared along with easy to understand consumer/patient fact sheets. Talking points for speaking with community members and patients will be offered. Risk factors to be discussed are evidence-based, derived from carcinogen classifications from authoritative bodies. Educational techniques to be discussed are also informed by best practices, for example the importance of elevating solutions/alternatives, not just the problems.

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### **CARING WITH COURAGE: IMPLEMENTING A BONE MARROW AND HEMATOPOIETIC STEM CELL TRANSPLANT CAREGIVER INSTRUCTIONAL CLASS AND SUPPORT GROUP**

**Danica Dorlette, MPH, New York Presbyterian at Weill Cornell Medical Center, New York, NY**

*Category: Patient Education and Safety*

Patients undergoing hematopoietic stem cell transplantation (HSCT) have an illness trajectory that is long and uncertain with varying demands of care. The responsibility for safely caring for these patients after discharge is placed on informal caregivers, such as family and friends. However, the potential burden on these caregivers is considerable. Literature states that they experience a lack of preparation and confidence needed to be successful in their role. HSCT informal caregivers have also been found to have poorer physical and mental quality of life. This poses a risk to patients such as delayed discharge, re-admission, and poor quality of life. The essential role that caregivers play in survivorship must be acknowledged. The Care Coordination,

Social Work, and Nursing departments developed a task force to address this issue. A program was constructed through the Intervention Mapping (IM) process and included the review of scientific literature, health behavioral theory, interviews, and dissemination of a Caregiver Readiness Survey over a 2-month period using a convenience sample of 28 (n=28) informal HSCT caregivers. Surveys showed greatest uncertainty regarding central line catheter care (92%) and handling nausea and vomiting (85%). However, caregivers felt most comfortable traveling to-and-from clinic visits (89%) and providing emotional support (82%). One percent (1%) of caregivers completed the open-ended question "What is a caregiver?" with the primary response theme being: encouragement. Low-response rates to this question have been interpreted as a deficit in role comprehension. The best interventions for HSCT caregivers are early and increase predictability of the caregiver's role and patient's disease course. A monthly 2-hour intervention was constructed with 1-hour devoted to skills-based education followed by a 1-hour support group. This class has been led by multi-disciplinary staff members and cover topics across multiple domains of care for comprehensive support. It is open to caregivers at any point in the transplant trajectory but is targeted to those pre-admission. Evaluation measures include attendance monitoring, class evaluation sheets, and pre- and post- testing. Within a 9-month period 28 informal caregivers demonstrated a: 24.2% improvement in understanding the discharge planning process; 18.2% improvement in understanding self-care methods; 17.2% improvement in confidence to assist in management of post-transplant symptoms; 15.6% improvement in confidence to identify and act on emergencies; and 11.6% improvement in perception of role support.

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### **PROVIDING END-OF-LIFE CARE IN AN ONCOLOGY ICU: CREATION AND UTILIZATION OF AN INTERDISCIPLINARY TAUGHT CLASS TO IMPROVE NURSING KNOWLEDGE**

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*Category: Professional Development*

Oncology critical care units have a mortality rate of up to 17%, indicating that end-of-life care is an essential skill of oncology nurses. Literature shows that one

of the greatest barriers for oncology nurses providing end-of-life care is a knowledge deficit. Caring for oncology patients during the dying process requires a holistic approach to prevent unnecessary suffering for the patient, while providing support for the patients' family. Evidence supports formative training of nurses in end-of-life care within the perspective of multidisciplinary work. The aim of this project was to create and pilot a formative training program on end-of-life care in the oncology critical care setting. A training program was created by a multidisciplinary team including nursing, social work, and pharmacy. A systematic literature review was conducted using electronic medical databases including PubMed, CINAHL, and Up-to-date. A pilot presentation on end-of-life care was provided to oncology critical care nurses at the Huntsman Cancer Institute (HCI). Training outcomes were created with The Canadian Critical Care Society's Withdrawal of Life Sustaining Treatment Working group Guidelines for the withdrawal of life-sustaining measures in mind. Topics included palliative medications, distressing symptom recognition and management, resources for spiritual and social support, and self-care methods for staff. Following the presentation, a written survey was administered to attendees. A four-point Likert scale was employed to assess presentation effectiveness and applicability. A multiple-choice question was also utilized to assess the number of formal education hours participants had prior. Seven nurses participated in the pilot presentation. Level of nursing experience ranged from three months to five years. Majority of participants reported receiving no prior training in end-of-life care. All participants agreed or strongly agreed that the class would improve their palliation of the dying patient. Formal training in end-of-life for newly hired oncology nurses is essential to providing quality care during a unique time within the oncology patient's journey. To reach a wider audience, this class has been developed into online modules that will be shared with affiliates throughout the Intermountain West. Moving forward, this content will also be integrated into the organization's nurse residency program for new-graduate nurses.

#### 141 EDUCATING NEW STAFF TO THE SPECIALTY OF ONCOLOGY

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Category: Oncology Nursing Practice

In 2019, the solid oncology unit at a large academic hospital, had a large influx of newly hired registered nurses

(RN). These new members included experienced oncology RNs, new graduates, and RNs transitioning into the oncology specialty. Although our medical center offers significant support for new hire RNs, the solid oncology Unit Practice Council (UPC) identified that there was a gap in providing education specific to the oncology specialty. In response to this education deficit we created a new hire module which focused on the educational key points required to provide safe patient care to this specialized population. Our overall goal is to provide a platform for new hire RNs to improve the quality of their transition into the oncology specialty. Our new hire module was designed in a PowerPoint format and included the following: (a) oncology vocabulary and definitions, (b) clinical scenarios with teach back/knowledge reinforcement questions and answers, (c) definition of oncologic emergencies with causes and pathophysiology, and (d) management of oncologic emergencies. We will present our data based on the survey taken pre and post completion of the educational module. The mixed survey included questions about the RN's comfortability with the oncology population and assessed their basic oncology knowledge. Pre-survey data results displayed a lack of knowledge regarding care in an oncology setting and a need for an educational platform that focuses specifically on oncology care. Post completion survey data is still being collected at this time. Preliminary data suggests that the majority of our new hire staff require an educational platform to properly prepare them for the acute oncology setting. This new hire module allows staff to educate themselves at their own pace and provides detailed explanations of topics and vocabulary that apply directly to patient care. We hope to continue this project and grow from a PowerPoint format to a more interactive module with animations and imbedded multiple choice questions. We want this new hire module to become integrated into the onboarding process for each of our new hired staff members.

#### 142 NOVICES TRAINING NOVICES: ONBOARDING LARGE NUMBERS OF GRADUATE NURSES IN AN ACUTE CARE SETTING

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Category: Professional Development

At a large tertiary care hospital in upstate New York, RN attrition rates on two large medical-surgical units were such that 35–50% of the RNs on each unit had

been practicing for less than 18 months, most less than one year. To fill gaps, more than 100 new graduate RNs (orientees) were onboarded during Summer 2019. This challenge provided the opportunity to re-visit our method of onboarding new graduates, and the role and qualifications of preceptors. RNs participating in the unit's shared governance councils participated in adaptation of an outcome-based orientation program including tiered skills acquisition. Born out of necessity, the purpose of this project was to successfully onboard significant numbers of new graduate RNs. Advanced beginner RNs found themselves in the role of novice preceptors. In order to successfully onboard such large numbers orientees, a Tiered Skills Acquisition Model (TSAM) model is chosen to provide significantly more structure to the orientation process, and provide clearer weekly goals for the novice preceptor. Weekly feedback sessions with the Clinical Educator, Nurse Leader, Preceptor, and Orientee identified barriers and goals along the way. Preceptor education was provided at the unit level prior to the arrival of the new graduates. Short-term gain is measured by (1) retention of existing preceptor staff, (2) satisfaction survey of preceptors addressing success of the program, and (3) successful and timely onboarding of the orientee as measured by competency validation and commitment to stay. Successful orientation of the new graduate RN not only enhances socialization to the environment, but also creates a sense of belonging. Many of the novice preceptors report feeling as though they are 'building their team'. Supporting advanced beginner RNs as novice preceptors has shown to increase their confidence and motivation to stay. Themes that influence success are emerging as the new graduates are completing orientation. Barriers to, and facilitators of, successful onboarding are being identified through the evaluation process in progress at this time (expected completion November 2019). The TSAM approach, coupled with peer-assisted learning, has strengthened teamwork. Support for the preceptor support is vital, as well as formal weekly feedback sessions, brief weekly education sessions for the orientee, and thinking outside the box.

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### **STANDARDIZATION OF ONCOLOGY PRACTICES ACROSS THE CONTINUUM: INPATIENT NURSES TRANSFORM CARE IN AN OUTPATIENT INFUSION CENTER**

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**Category: Oncology Nursing Practice**

Evidence-based standards are the cornerstone

for safe practices in day-to-day chemotherapy administration. To minimize the risk of error, The American Society of Clinical Oncology (ASCO) and the Oncology Nursing Society (ONS) jointly published Chemotherapy Administration Safety Standards for ordering, preparation and administration for both inpatient and outpatient settings. In March 2019 the Centers for Medicare & Medicaid Services (CMS) conducted an 11-day validation survey visit at our large academic healthcare organization including its outpatient center areas to ensure both settings met regulatory standards for safe care. Several deficiencies in the outpatient infusion center were cited for inadequate staffing levels, deviation in chemotherapy administration processes, and unsatisfactory staff competencies and training. The inpatient medical oncology unit, however, received no deficiencies making it apparent that a disparity in the standardization of care between outpatient and inpatient existed. The aim of this project is to standardize delivery of oncology care across the continuum employing the evidence-based ASCO/ONS Safety Standards for chemotherapy and biotherapy ordering, preparation and dispensing, administration and monitoring. The inpatient clinical director and nurse manager were assigned to the outpatient center to provide leadership oversight, assess and identify the variation in care, and address the need for standardization. A staffing plan and assignment grid was developed. To augment staffing secondary to 100% RN turnover ONS chemotherapy certified inpatient nurses were assigned to the outpatient infusion center. Weekly clean sweeps and daily huddles were implemented to address and resolve safety gaps in care. Nursing, pharmacy, physicians, facilities management, housekeeping and scheduler representatives were engaged to address changes and decisions in staffing, assignments and workflow process improvement. Nursing competencies and skill sets specific to outpatient cancer care were developed and implemented. 100% of newly hired outpatient infusion nurses completed ONS chemotherapy administration provider course and training. In July 2019, during CMS sites re-visit for full validation of regulatory compliance, the outpatient center had zero deficiencies. Deemed status was restored and Medicare Termination notice was avoided. Standardization of oncology care and chemotherapy administration based on best-practices and evidence driven guidelines, such as from ASCO/ONS, can ensure a quality-driven, safe practice across the continuum of care.

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**DESIGN A SUITABLE IMMUNOTHERAPY CONTINUING EDUCATION COURSE INTEGRATING APPLICABLE INFORMATION FROM U.S. FOR ONCOLOGY NURSES IN CHINA**

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Category: Oncology Nursing Practice

Cancer Immunotherapies have gained significant traction in developed countries in the past decade. However, their clinical applications and related best nursing practices are relatively new to oncology nurses in China, where the first immune checkpoint inhibitor drug targeting PD-1 pathway was approved in mid-2018. While hundreds of thousands Chinese nurses have dedicated to, or routinely engaged in the nursing care of cancer patients, the majority of them have limited knowledge and clinical experience on current immunotherapies. Experienced oncology nurse practitioners from the US teamed up with leading Chinese experts in oncology nursing to develop a comprehensive immunotherapy-focused training to meet the educational needs of Chinese oncology nurses with diverse background. It was designed to introduce cutting-edge medical and nursing information, particularly from the US, based on comprehensive literature review and clinical cases. Information was modified for easy understanding, interesting, stimulating and empowering for the nurses, with practical ideas suitable in local settings. The curriculum provided current, systematic, thorough, and professional materials that were informative and practical to them. Topics included overview of immunotherapy, approved indications and application in various cancers, safe nursing in drug administration, combination therapy, CAR-T cell therapy, adverse event management, nursing evaluation and management, patient and family education and communication, nursing in clinical trials, future directions, etc. The course was approved as a 6-credit, National Level Category I (highest level) CME course in China, a first for such training. In August 2019, 44 nursing professionals from 10 provinces attended the 3-day training in Beijing, China. Many clinical cases from both countries were analyzed in small groups;

some generated inspiring discussions. Based on the feedback survey, the majority of attendees considered the course 1) comprehensive, systematic and easy to understand, 2) met or exceeded expectations, 3) significantly improved their knowledge in cancer immunotherapy, 4) highly applicable in everyday nursing care, and 5) enhanced their understanding of immunotherapy clinical trials. Effectively selecting, integrating, and sharing current clinical information from both US and China was the key in building a relevant and highly successful training course for Chinese oncology nurses. It is also important to be aware of, and reflect the differences between the countries for optimal outcome.

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**ONCOLOGY NURSE CERTIFICATION SMART COURSE**

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Category: Professional Development

Building a sustainable oncology nursing workforce is critical for the future of quality cancer care. According to the American Nurses Association (ANA) the demand for registered nursing jobs will surpass all other professions through 2022. Health Resources and Services Administration estimates the average age of an RN is 50 years. The combination of retiring registered nurses (RNs) and increase demand for nurses is creating a gap of expertise. Our institution has supported specialty nursing certification by providing reimbursement of test fees for successful completion, career advancement ladders with monetary rewards, and paid education days. In addition, an all-day (on campus) Oncology Certified Nurse (OCN®) review course is offered annually. However, due to the declining numbers of OCN®, a different approach to promote oncology nursing was identified. Currently, the predominant generation of the nursing workforce is the “millennials” (RN’s born between 1982–2000). According to ADVANCE Nursing magazine, millennials are 60% more likely to become nurses than the previous generation. The millennials are “digital natives”, they have grown up with the internet, and as a result are unique learners, requiring different strategies to achieve learning outcomes. The Oncology Nurse Certification SMART Course was created to engage millennial learners. The course is content-centered (OCN® blueprint) and student-centered. Research shows that lectures and power-point presentations are no longer the teaching paradigm. The millennial learner prefers activities over lectures,

desires flexible work spaces, enjoys games and interactive media, wants personal attention, and expects engaging experiences to maintain their interest in a subject. The SMART course applies these learning strategies and consists of 6 two-hour live “classroom/Google hangout sessions” coupled with 6 two-hour self-paced learning activities. Nursing contact hours are offered for each session. The live sessions can be attended in person or accessed by computer. Classroom sessions utilize team based learning, case scenarios, games, and test taking strategies. A detailed home worksheet employs a number of education methodologies such as online resources, you-tube videos, journal articles, and case presentation preparation. There will be three outcomes measures: 1) the number of nurses attending the course, 2) a self-evaluation of knowledge pre/post program, and 3) number of participants able to pass the OCN® exam.

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### MANAGEMENT OF NEUTROPENIC FEVER IN THE OUTPATIENT ONCOLOGY SETTING

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Category: Oncology Nursing Practice

In the oncology patient population, neutropenic fever is a medical emergency requiring prompt intervention to avoid sepsis and possible death. In the outpatient cancer center of a major teaching hospital, the medical oncology physician practice area has been separated from the chemotherapy infusion unit and merged with the surgical oncology physician practice area ahead of a planned move to a new and larger facility. The nursing leadership had identified that there was an educational gap for the nurses in this expanded area regarding this oncologic emergency. An educational intervention with both didactic and hands-on components was developed for the nursing staff. A pretest-posttest design was utilized to assess the nursing staff’s knowledge of neutropenic fever and the process for obtaining blood cultures from central venous access devices (CVAD). Written materials accompanied the didactic education, which was followed with demonstration/return demonstration on the ‘Chester Chest’ manikin. The post-test results indicated that all participants had acquired new knowledge as evidenced by scores of 100% for all questions. With the goal of less than 60 minutes from presentation of fever to antibiotic administration, it is imperative that oncology RN’s understand the importance of obtaining blood cultures from all CVAD lumens prior to administering them. By

presenting education in multiple formats, the oncology RN’s increased their knowledge of neutropenic fever as an oncologic emergency as evidenced by their post-test scores. To ensure the quality and compliance with the CVAD policy and the process for obtaining blood cultures from CVAD’s, the blood culture results of those febrile neutropenia patients was monitored for the presence of Staphylococcus epidermis; to date, this has not been found. The nurses who participated in this educational activity reported greater confidence in the time-sensitive care delivery to this patient population.

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### ONLINE VS MENTORED EDUCATION FOR CDK 4/6 INHIBITORS IN BREAST CANCER: CURRICULUM AND OUTCOMES

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Category: Treatment Modalities

Rapid and constant advances in cancer therapy require effective and feasible means to educate oncology practitioners about new treatments and how to translate these therapies into real-world nursing practice. Different educational approaches merit evaluation and comparison. The purpose was to test the efficacy of a multicomponent mentored, live, and online curriculum approach provided to select advanced nurses to enhance knowledge and clinical practice related to CDK 4/6 inhibitors for breast cancer therapy, and to build nurses’ skills as credible presenters culminating in ACE (Advanced Clinical Educator) status versus an online curriculum accessed by a national cohort of learners. ACE candidate (N = 9; 22% nurse practitioner [NP]) curriculum included baseline and final self-assessments, self-study online modules, online virtual summits, and live presentations; all under the support and guidance of an expert advisor (April 2018 to April 2019). The National Cohort (N = 184; 41% MD; 32% RN/NP) participated in 2 self-study online modules only (launched September 2018). Outcomes measured were curriculum completion rates, satisfaction, performance (surrogate measure), knowledge, competence, confidence, and practice strategy. Educational approaches resulted in differences in outcomes for ACE versus National Cohort participants: 100% versus 53% completion rates; 14% versus 40% knowledge increase; 22% versus 38% confidence increase; and 30% versus 28% improvement in practice strategy. ACE candidates had

higher post-test scores versus National Cohort on all 5 domains: knowledge (91% vs 88%), competence (100% vs 88%), performance (76% vs 67%), confidence (4.12 vs 3.85; 5-point Likert scale), and practice strategy (4.73 vs 4.05; 5-point Likert scale). While both groups demonstrated high levels of competency and satisfaction, they also showed gaps in key concepts; e.g., preventing/monitoring safety issues and individualizing treatment. From similar pre-test scores, post-test scores of ACE candidates were significantly higher ( $p < 0.05$ ) than non-candidates, for development of education strategies to help patients recognize and manage treatment side effects. Oncology practitioner education demands creative and novel approaches for learners that are engaging and efficacious but also accessible and timely. Although practitioners in the national cohort demonstrated some improvements in key educational outcomes using online self-study, the ACE Master Class approach represents an innovative method to enhance clinical oncology nursing practice. This activity is supported by educational grants from Novartis Pharmaceuticals and Lilly.

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### **DEVELOPMENT OF A PERSONAL PROTECTIVE EQUIPMENT CHAMPION ROLE TO IMPROVE COMPLIANCE WITH SAFE HANDLING OF HAZARDOUS DRUGS**

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**Category: Oncology Nursing Practice**

Despite known risks of exposure to hazardous drugs, compliance with utilization of proper personal protective equipment (PPE) is suboptimal. Barriers to complying with PPE recommendations include lack of sufficient supply, perceived barriers with comfort and time, interference with job duties, and financial constraints. At a large medical institution, compliance rates with PPE utilization in the inpatient oncology department were low during chemotherapy administration, disconnecting and discarding chemotherapy, and collection and disposal of patient waste. The purpose of this project was to increase compliance with PPE utilization through the development of a PPE Champion role. The PPE champion role was developed to assist with formal training and dissemination of USP <800> standards to all staff, provide peer support by modeling appropriate safe handling of antineoplastic drugs, complete compliance audits,

and to provide coaching and follow-up for staff not meeting standards in both inpatient and outpatient oncology areas. Outcome metrics included increased compliance with proper PPE utilization during chemotherapy administration, disconnecting and discarding chemotherapy, collection and disposal of patient waste, and documentation of chemotherapy precautions. Twenty nine PPE Champions were trained to represent both the inpatient and outpatient oncology areas. Training included a didactic overview of standards for safe handling of hazardous drugs, competency assessment of PPE utilization, effective methods for coaching and giving feedback, and instruction on utilization of an audit tool. Data collected from PPE Champions demonstrated an 81% overall compliance with PPE utilization during chemotherapy administration, disconnecting and discarding chemotherapy, collection and disposal of patient waste, and documentation of chemotherapy precautions. Despite significant improvements, overall compliance with PPE and safe handling practices remained below the desired control limit. In addition to measuring compliance with PPE, the audit tool also assessed for compliance with general safe handling recommendations, including working below eye level, removing outer gloves prior to programming the infusion pump, and washing hands with soap and water after doffing PPE. Noncompliance with these additional criteria may have lowered the overall compliance rate. Data suggests that implementation of a peer PPE Champion role had a positive impact on improving compliance rates of PPE utilization when handling hazardous drugs. Furthermore, utilization of PPE Champions helped to promote a culture of safety.

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### **MENTORSHIP: KEY TO SUCCESS IN AN OUTPATIENT ONCOLOGY CLINICAL LADDER**

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**Category: Professional Development**

Clinical ladder programs for inpatient settings have been in place for decades; yet remain limited in ambulatory care. Our ambulatory clinical ladder program at a large academic outpatient cancer center has been in existence since 2010 to recognize and reward exceptional contributions to nursing. Four levels represent incremental stages of clinical expertise, achievement, and professional contributions. The sections of clinical ladder are separated into eight nursing standards based on the scope and standards of practice set by the American Nurses Association. This presentation discusses

the mentorship role in helping nurses develop, revise, and implement their clinical ladder packets, and lessons learned from outpatient oncology. Each year, nurses contract for their clinical ladder goal and prepare a packet of information. The purpose of the packet is to present evidence to the ambulatory clinical ladder committee that the candidate is functioning at a higher performance level. The committee is comprised of voting peers from varying outpatient departments and advisors that review the information for successful completion. Outpatient oncology and radiation oncology departments have dedicated clinical ladder committee members to mentor clinical ladder participants within these departments with scheduled spot checks. It was highly recommended that participants attend one of the packet spot checks or meet with a committee representative within their district to have materials reviewed prior to packet submission. Use of dedicated mentors specific to the oncology and radiation oncology departments lead to an increase in clinical ladder participants and levels achieved by these participants. Clinical ladder allows for recognition of nurses participating in clinical ladder professionally, adds in retention of current nursing staff, and aids in recruitment of nurses interested in working at my institution. Institutions could benefit from the clinical ladder mentorship program as developed or modify it based on the needs for their setting. With the competitiveness of the job market and shortage of nurses, institutions must have incentives to retain and recognize current nurses for their contributions to nursing within their institution. In addition, institutions must also recruit new nurses with incentives such as professional growth and development through clinical ladder programs. Lessons learned from hospital systems can be modified for a successful outpatient clinical ladder program with a key role for mentorship.

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### **THINKING ABOUT CHANGING FROM CLINICAL PRACTICE TO ACADEMIC NURSING? INSIGHTS OF AN ONCOLOGY NURSE PRACTITIONER**

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Category: Professional Development

Today's nursing shortage calls for nurse clinicians from all specialties, including oncology, to join academic nursing and teach the next generation of nurses. Deciding to be part of the solution to this problem is a nursing responsibility that Oncology Advanced Practice Nurses cannot ignore. However, transitioning from

clinical practice to academia is not an easy move. New faculty may experience frustration when they find that their expectations are not consistent with the reality of the new role or their clinical expertise is not enough to overcome the academic challenges. The purpose was to discuss the role change from expert oncology nurse practitioner to novice academic nurse and offer insights from personal experience and review of the literature. Using Afaf Meleis's Transitions Theory and Rolfe's Reflective Model, the author describes a two-phase process that includes decision-making and the actual transition experience from expert oncology clinician to novice academic nurse. The author correlates poignant elements of transition including change triggers, adaptive solutions, and academic culture. Outcomes from the transition experience seek to provide a reflective platform for oncology nurses intrigued by the possibility of change to the academic field. The final insights, based on the author's experience and the review of the literature, offer support for a healthy transition that includes the following: clarifying meanings, setting goals, and role taking. Key elements of adaptation to the academic role include learning the elements of enculturation, such as the rules, rituals, and language of the academic world. As the nursing profession responds to the nursing shortage, understanding the experience of the transition from clinical practice to academic nursing becomes relevant. Lessons learned come together in pre-transition and post-transition phases. The pre-transition phase involves a purposeful examination of the situation from different perspectives. For example, talking with different academic nurses may help expand one's view of what academia looks like. The post-transition phase depicts tips that the new comer needs to know preemptively to navigate successfully the academic maze. The author offers a provocative combination of theory and reflection that clinicians may not be accustomed in their daily practice. This is an invitation to think differently.

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### **AMBULATORY UNIT BASED EDUCATION: ENGAGING FRONT LINE STAFF TO IMPROVE THE QUALITY AND COMPLIANCE OF COMPETENCY PASS OFF**

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**Category: Professional Development**

Oncology nurses desire opportunities to be engaged in education and department improvement initiatives. Historically, our outpatient clinic nurses have struggled with a low level of unit engagement, decreased compliance, satisfaction and comfort in our hospital based skills days. The purpose of this project was to develop a unit based skills offerings throughout the year in the clinic setting versus a general hospital based annual skills day. The goal was to build employee engagement, employee satisfaction, and increase the quality of skill competence among all staff. The first step was offering a unit based mock code. This process was developed by two education champions a RN and MA working together with Educator support in different outpatient clinics. All staff received preparation materials to study in advance. The skills were reinforced by the champions in a staff meeting and then moved into the clinic setting as they ran the mock code in their own department. The champions led the code and highlighted unit specific challenges and solutions, passing each staff member off as they were deemed competent. Past skills days routinely took an entire year to complete with many staff waiting until the last day to attend. It was not unusual for the department to spend time and resources on makeup sessions for those that missed the three offerings a year. After implementing this unit based initiative, 88% of the Medical Assistants, and 80% of RN's completed the skill within the first offering. Nurses were surveyed after and data showed 90% of the staff increased employee satisfaction. Staff preparedness/confidence increased from 3.76/5.0 rating to 4.52/5.0 comparing before and after unit skill pass off. In addition, data showed a dramatic increase in favor of unit based competency increasing from 3.28/5.0 to 4.83/5.0. In summary, there has been an increase in staff satisfaction, staff compliance and improved competence of staff in the outpatient clinics. Application of the same process to other planned skills throughout the year in all outpatient areas.

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### **ONCOLOGY INTERNSHIP: A HIRING AND RETENTION TOOL**

**Stephanie Hammontree, MSN, RN, OCN<sup>®</sup>, University of Kansas Health System, Kansas City, KS**

**Category: Oncology Nursing Practice**

An oncology internship was developed in 2017 to provide nursing students interested in oncology direct exposure to the variety of nursing roles in

the oncology setting. Students in baccalaureate programs receive minimal exposure to oncology nursing in their undergraduate programs. Providing the internship for college credit was an opportunity to give them experience. Approximately half of the students participating in the oncology internship have since become employed at our Midwest academic medical center. Ongoing recruitment suggests the internship is a tool that can be utilized for hiring and retention of oncology nurses. The purpose of this project is to evaluate the oncology internship and its ability to introduce nursing students to the field of oncology, as a tool that can be utilized for hiring and retention of oncology nurses. A four week oncology internship was developed in collaboration with the hospitals education and development team to guide a student through the cancer care continuum. At the completion of the internship students evaluated their experience and offered suggestions for improvement. Their interest in a career in the field of oncology was also assessed. Employment of interns was tracked through internal resources. Prior to the experience most students were undecided on if they intended to pursue a career in oncology nursing. The interns reported an interest in pursuing the oncology field and were satisfied with the exposure to varying departments which helped them narrow their career focus. After 3 years of offering the internship, 6 of the 11 eligible for hire interns are currently employed at the system in the oncology setting. The oncology internship has resulted in a 55% retention of students in the program as employees. Providing this opportunity to students captures those interested in oncology, introduces them to the health system by developing relationships with leadership and staff, and encourages application to the health system and a future career in oncology as a member of the health system. Continuing to offer the internship annually in collaboration with local nursing schools offers the potential to recruit and retain new graduate nurses into oncology nursing positions.

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### **PILOT TRAINING PROGRAM OF NURSE NAVIGATORS INCREASES SURVIVORSHIP KNOWLEDGE AND SUPPORT FOR YOUNG WOMEN DIAGNOSED WITH BREAST CANCER**

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Category: Patient Education and Safety

Women diagnosed with breast cancer before age 45 face unique survivorship challenges. Few cancer centers offer survivorship education programs for young women and some healthcare providers report feeling unprepared to address these needs. To address this gap, a national non-profit developed the Survivorship Series for Young Women Affected By Breast Cancer and a curriculum to train nurse navigators to implement this four-part patient education program in their cancer centers. Through this pilot program, we first sought to increase the Program Leaders' knowledge of the survivorship topics covered in the curriculum and their confidence to implement the program. Second, we sought to increase the program participants' knowledge of survivorship topics and confidence to make behavioral changes to increase their quality of life. 11 selected nurse navigators agreed to be Program Leaders (PL), participate in an in-person training, and implement the sessions at their cancer centers. During the PL training, each topic was reviewed in-depth to increase the PL's knowledge. The PLs were trained on how to implement the series. The PLs completed a pre and post training assessment. After each session held, the PLs completed session reports, summarizing the session. PLs provided evaluation forms to participants after each session. Independent evaluators conducted one-hour interviews with all PLs and interviewed 18 program participants. Evaluators analyzed numerical data and closed-ended responses using frequency distributions and the calculation of summary statistics. They used categorical content analysis as the primary strategy to summarize open-ended form responses and interview data. The training evaluation showed that PLs increased their knowledge in all domains. Total participant attendance for each of the 4 sessions ranged from 68 to 111. Most participants reported knowledge gain for all sessions. Participants reported behavior changes or intentions of changing their behaviors. Participants preferred a PL with strong facilitation skills that could guide group discussions, while providing credible information about the topics. This evaluation showed that the Survivorship Series successfully increased knowledge for both PLs and participants. Participants reported behavior changes and increased peer connections. The program engaged over 200 people and provided them with a supportive educational program tailored to the unique survivorship needs of young women affected by breast cancer.

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## THE IMPACT OF A TEAM LEADER IN THE OUTPATIENT ONCOLOGY SETTING

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Category: Professional Development

In a large outpatient clinic, managerial demands and responsibilities can become overwhelming for one nurse manager. Administrative duties are often postponed to address urgent issues that require the immediate and physical presence of the manager. The team may feel undervalued when the manager is not present due to other responsibilities. Remaining visible to staff while balancing expected duties may cause the manager to feel frustrated and ineffective. To combat this, Tennessee Oncology introduced a new team leader role to provide consistent support for the manager and staff. The need for this role was recognized through identification of increased workloads. Patient volumes in Tennessee Oncology's large clinics continued to climb, placing a burden on nursing staff. The team leader role was proposed to provide guidance and direction to the clinical team to improve patient outcomes, staff satisfaction, and manager turnover. The team leader works closely with the clinic manager to fill staffing gaps and enhance team performance. To meet these goals, the team leader is present in the treatment room each shift to provide direct support to both patients and nursing staff. The presence of the team lead allows the clinic manager to focus on administrative duties more consistently. To equip the team leaders to perform their new role, training was provided in the areas of precepting, team-building and morale, and leadership skills. In their orientation to the role, team leaders learned to quickly resolve patient and staff issues, to promote trust in their team, and to transition from peer to leader. The team leader is required to balance their own patient assignment and other responsibilities while remaining available to address urgent issues. The most significant challenge for the team leaders has been the peer to leader transition—balancing their own patient assignment alongside their team while also serving as an effective leader. The team leaders have been instrumental in tracking clinic flow and providing support to the clinic managers. This, in turn, has increased the job satisfaction of the managers while providing an opportunity for growth in new leaders. Valuable time has been saved and managers report decreased stress levels. By sharing a clear vision with a focus on team performance, the team leaders have a powerful impact on staff and patient outcomes.

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### **LEADERSHIP INFLUENCE ON PATIENT OUTCOMES THROUGH STAFF EMPOWERMENT AND ENGAGEMENT**

Rhona Henry, RN, BSN, University of Rochester–Wilmot Cancer Institute, University of Rochester Medical Center, Rochester, NY

Category: Professional Development

Leadership can be described as the ability to influence, motivate and enable others towards the effectiveness and success of an organization. There is increasing recognition of the importance of Nurse Managers to possess leadership qualities and styles that will positively impact staff empowerment and engagement to promote the delivery, coordination, and maintenance of high-quality patient care and outcomes. In Research studies, leadership is conceptualized as one of the several factors as the driving force that strongly influence other aspects of the work environment including staff engagement, job satisfaction, patient outcomes, quality outcomes. The purpose was to explore how leadership qualities influence staff empowerment to impact patient outcomes and enrich the lives of patients and families. Foster framework that comprises of trust, support, fairness, equity and a common goal; Enhances teamwork using best practices to promote a high level of quality patient care and Monitor and maintain patient safety and quality outcomes. Facilitating and ensuring safe high-quality patient care; Enriching the quality and work-life balance of nurses; Create, empower and sustain an optimal positive work environment. Evaluation was conducted with Press Ganey Employee Engagement Survey, Staff Retention, Increased Press Ganey scores. Healthcare leaders and Nurse Managers impact the culture in both positive and negative dimensions. Evidence shows that leaders who leads by example, leaders who provide and promote trust and autonomy to their staff will promote and improve positive outcomes. Nurse Managers who possess the qualities of transformational leadership style will cultivate and enrich high-quality relationships, purpose, value, positive and productive work environments that will enable their staff to contribute to improved patient care and meaningful quality outcomes. A nurse manager who shows genuine concern for staff, one who promotes an environment of shared decision making, autonomy and trust will invite and foster behaviors from their staff that will positively influence patient outcomes. “Positive leadership has positive builds positive emotions in employees.

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### **CREATING THE NEXT GENERATION OF ONCOLOGY NURSES THROUGH THE PROFESSIONAL DEVELOPMENT OF THE ANCILLARY WORKFORCE**

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Category: Professional Development

Concerns regarding aging nursing workforce and shortages are not unique to oncology. Given the specialized skill and expertise of oncology nursing practice recruitment/retention is an ongoing challenge. Cancer is the 2nd leading cause of death; oncology nursing may be more vulnerable to these professional and demographic trends than other areas of nursing. A lack of empirical based knowledge describing the extent of how this affects oncology nurses. Nurses thrive in a healthy work environment where professional development is valued. Reports of shortages of nurses are not uncommon, and cancer facilities report difficulty retaining staff. This project describes cultural transformation to recruit/retain nurses while professionally developing our ancillary workforce. Our collective approach included hiring and mentoring new graduates, engaging tenured staff in mentorship and supporting the professional development of our ancillary staff. We developed an active partnership with nursing schools and encourage clinical placement of student externs and shadowing experiences. Our staff educates nursing students on topics ranging from patient safety, delegation, oncology skills, and reviewing policies-procedures. We successfully on-boarded several nursing students to our team. Collaboration agreements between academia and practice can help create a pipeline of oncology nurses. The ancillary staff has the training and experience to practice at the top of their scope. Recognizing and actualizing ancillary workers potential can be a win-win for the employee and team alike. We have successfully recruited and retained another generation of oncology nurses. We have decreased our vacancy rate from 35% (2017) to 5% (2019). Close to 20 nurses completed their BSN in the past 2 years and more than a dozen nurses are enrolled in graduate school. Our certification rate has increased from 29% (2016) to 51% (2019). Workforce problems exist that require attention so oncology nurses may provide and patients experience the very best care. Nurse leaders

should seek opportunities to allow ancillary staff to tap into their full potential. These strategies help develop a strong team, and provide the unit with critical thinkers. Oncology nurses possess nuanced skills needed to provide treatment, education and emotional support to patients/families. As the number of people at risk and those with a cancer diagnosis increases it's imperative to invest in the next generation of specialized nurses and to strengthen the oncology workforce.

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### MODEL TO DEVELOP A PRODUCTIVE COLLABORATION AT ONCOLOGY NURSING SOCIETY ANNUAL CONGRESS

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Category: Professional Development

The advancement of nursing is dependent on continuous innovation and growth in nursing education, research and practice. Innovation and growth are optimized by national, transdisciplinary collaborations which facilitate the generation of novel ideas and shared resources. <sup>1</sup> Conferences present an ideal opportunity to develop such collaborations. <sup>2</sup> However, conference attendees can be overwhelmed by busy schedules, information overload, and uncertainty about how to establish new collaborations. The purpose was to present a model for establishing a productive, transdisciplinary collaboration at national conferences. A six-step model was concurrently developed and tested: (1) Introduce yourself (2) Identify overlapping interests (3) Share resources (4) Plan a pilot project (5) Execute project (6) Establish infrastructure for continued collaboration. An introduction (step 1) was made between two junior nurse scientists attending the Oncology Nurse Scientist Intensive at the 2017 Oncology Nursing Society (ONS) Congress. During a break, they dined together to explore shared interests (step 2). Through a lengthy discussion, they each listed their interests, goals and current project ideas. Overlapping interests and career trajectory goals were recorded. They discussed resources at their respective institutions and how they could be shared (step 3). Guided by identification of overlapping interests and available resources, they planned a

pilot project (step 4)—a systematic literature review on use of video education in cancer survivorship. After the conference, using web-conferencing, they established a timeline and built the team needed to execute the project. They added: (a) a health sciences librarian (to assist with systematic review methodology); (b) a senior nurse scientist with national ONS leadership experience (to provide professional development and consult on pilot project); and (c) nursing students (to share workloads, increase productivity, and enhance professional development through co-mentoring). The systematic literature review was executed (step 5), resulting in two national presentations and two manuscripts (under review and in preparation). Additionally, the systematic review provided background for each nurse scientist's federal and foundation grants proposals. Finally, they developed infrastructure for continued collaboration (step 6) by joining a transdisciplinary, national, peer-mentoring program. Attendees of this presentation may follow this model to develop collaborations, improve mentorship skills, and ultimately expand the nurse scientist pipeline. Diversity of experiences and ideas from various institutions leads to innovative approaches to optimize nursing education, research and practice.

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### ADOPTION OF NEW COMMUNICATION STRATEGIES IMPROVES ONCOLOGY NURSE PERCEPTION OF PRACTICE CHANGE

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Category: Oncology Nursing Practice

Oncology nursing practice changes occur rapidly and frequently, posing challenges in communicating new information. At a multi-site academic cancer center across two states, with 12 outpatient sites and over 3,900 nurses, evidence-based practice (EBP) changes were centrally communicated to all staff, however they were not consistently integrated into practice. A literature search revealed that to meet the needs of diverse workforces across varied settings, a standardized multi-modal approach utilizing local leaders,

defined as Nurse Managers, Clinical Nurse Specialists (CNSs), Nurse Educators, and experienced clinical nurses who serve as role models, was required. Internal evidence collected through interviews affirmed that staff were more responsive to information when it was shared by local leaders in their respective work areas. The 'EBP Update' was developed and contains all recent, non-urgent practice changes consolidated into one document. The EBP Update is emailed on the same day, every month only to the local leaders, defined as a triad of NLs, CNSs, and Nursing Professional Development Specialists. The local leaders then review the information in the EBP Update and decide how to best disseminate the relevant information to their nursing staff. Follow-up interviews conducted 6 months post-implementation, revealed high levels of satisfaction with the EBP update. Both frontline nursing leaders and bedside staff appreciated the formalized/structured process, allowed staff to hear information from leaders they personally knew, and decreased the amount of daily emails received. Local leaders are crucial in identifying pertinent practice changes from the EBP Update for their practices and communicating it directly to their nursing practice area. Their use allows for information awareness from a trusted resource and an opportunity to ask questions and understand rationale for changes, without it over-burdening staff with multiple emails. The EBP Update diminishes the volume of emails that nurses receive and allows leadership to deliver the information in ways known to be most effective for their unique groups. Supported by evidence and implemented with effective strategies, the EBP Update was fully adopted across the entire nursing department with little resistance despite the large numbers of leaders and wide diversity in leadership styles. This presentation will describe sample EBP Updates, implementation process, interview data and other metrics.

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### ORAL ANTINEOPLASTICS: TOWARDS A STANDARD OF CARE

Jessie Holland, MSN, RN, OCN®, Memorial Sloan Kettering Cancer Center, New York, NY; Christopher Brooks, MS, RN, CNEP, AOCNS®, Memorial Sloan Kettering Cancer Center, New York, NY; Nancy Houlihan, MA, AOCN®, Memorial Sloan Kettering Cancer Center, New York, NY; Jericho Garcia, MSN, RN-BC, Memorial Sloan Kettering Cancer Center, New York, NY

Category: Coordination of Care

Oral anticancer agents (OAs) carry risks of

non-adherence and financial toxicity and shift responsibility for safe administration to patients. In 2013, ASCO/ONS added recommendations about OAs to their Chemotherapy Administration Safety Standards, including monitoring initial and ongoing adherence and toxicity. A 2015 questionnaire conducted at our National Cancer Institute-designated comprehensive cancer center revealed that 24% of patients reported missing OA doses over the previous month. Reasons included forgetfulness, side effects, change in routine, and insurance or pharmacy issues. Review of systems demonstrated an absence of a standardized way of assessing, documenting, and responding to barriers of adherence and no consistent method for assessment of adherence and toxicities after patients started a new regimen. The survey identified the need for standardization of non-adherence risk assessment and associated nursing interventions to reduce barriers. An Oral Chemotherapy Task Force (OCTF) was formed consisting of Registered Nurses (RN), Nurse Leaders, Nursing Informatics, Nursing Research, and Pharmacists. A goal of the OCTF was to incorporate assessment of adherence into clinical care. A literature search revealed two validated tools, the Adherence Estimator which predicts patients at risk for non-adherence, and the ASK-12 which identifies barriers to adherence. The OCTF used these tools to develop two assessment forms, one to identify risk factors at the time of prescribing and one to assess adherence during follow up. Patient responses were mapped to nursing interventions and institutional resources. Documentation for nursing education and assessment was updated to capture adherence assessment and associated clinical care. An order for weekly follow up for adherence assessment was designed for the first four weeks a patient is on a new agent. An Oral Antineoplastic Standard of Care (SOC) was developed incorporating a non-adherence risk assessment tool at the start of a new regimen, an adherence assessment tool at subsequent visits, a weekly check in with the RN for the first cycle, and associated changes to documentation. A pilot has been implemented; outcome measures include adherence to the SOC and patient experience. Standardized assessment and documentation of OA adherence and toxicity is essential to patient safety. The OCTF developed an evidence-based SOC that supports nurses in identifying patients at risk for non-adherence and helps them tailor education, connect patients with resources, and escalate care appropriately.

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## DEVELOPING NURSES TO THE ART OF ONCOLOGY NURSES

Patricia Jakel, RN, MN, AOCN®, UCLA Health Santa Monica, Santa Monica, CA; Stephanie Jackson, MSN, AOCNS®, BMTCN®, Ronald Reagan UCLA, Los Angeles, CA

Category: Professional Development

Recruiting and training oncology is challenging at the best of time but training medical surgical nurses to oncology then CAR T therapy has unique challenges. Our academic health system needs to expand our CAR T program do to a bed shortage. A new medical surgical unit, staffed with 30 RNs was chosen to house the current CAR T program. The purpose was to develop a comprehensive education program for non-oncology nurses to be competent, skilled chemotherapy nurses and CAR T cell nurses. The project has three phases: (a) Chemotherapy Training- on-line course, 12 hours with chemotherapy resource and 8 hours in outpatient clinic. After completion of chemotherapy education patients will be scheduled for the new unit. Each nurse new to oncology will spend 6 shifts on the solid tumor unit and 3 shifts on the transplant/CART unit. (b) REMS Training for all staff involved in CAR T- nursing (oncology and ICU), MDs and pharmacy. Education will be followed by simulation training with emphasize on CRS and neurological adverse events. Simulation has shown to improve nursing critical thinking and improve patient safety. (c) One month prior to our go-live a simulation on the unit with all the departments. After the Go-Live date on the new unit, nurses from the original CAR T unit work and support on the new unit for 3 months. At each phase, the CNSs and Unit Directors assess, receive staff feedback and re-direct the process as needed. At this time psychosocial support is critical, as these medical/surgical nurses were not hired to care for oncology patients. Staff that do not want to care for oncology patients are assisted in relocating within the system. Also, support is very important for all staff regarding safety of chemotherapy especially regarding fertility issues for this very young staff. ONS guidelines are utilized to educate all staff to safe handling. Creating bridge programs for nurses to oncology expert is critical as the shortage of qualified oncology nurses continues. Developing and creating innovative programs lead by CNSs is important and timely work in the oncology nursing world.

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## DESIGNING AN INNOVATIVE ONCOLOGY ORIENTATION CURRICULUM:

## TRANSITIONING FROM MEDICAL-SURGICAL NURSE TO ONCOLOGY NURSE

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Category: Professional Development

A community-based hospital within our healthcare system designed an oncology unit to meet the growing need for cancer care in their region. The unit was staffed with medical-surgical experienced nurses and graduate nurses who wanted to take care of cancer patients, but had minimal knowledge of oncology nursing. Almost immediately, the unit experienced staff dissatisfaction and medication errors. The nurse educators at our NCI designated cancer institute performed a needs assessment and identified that staff needed oncology specific education to care for the cancer patient population, increase patient safety, and improve staff satisfaction. Using the ONS Core Curriculum for Oncology Nursing, core oncology concepts were determined and a new oncology orientation curriculum was developed. The purpose of this project was to provide staff with an oncology-based nursing orientation to increase patient safety and improve staff satisfaction. The nursing education department identified didactic content to enhance the nurses' knowledge of the oncology patient population. Content focused on disease and treatment education, hazardous drug safety, major adverse side effects and symptom management, identification of nursing implications in oncologic emergencies, and patient education. The developed program included chemotherapy overview, oncologic emergencies, cancer fundamentals, relationship-based care model, surgical oncology foundations, BMT overview, and nutrition. In addition, a skills component was introduced to staff that included working with a clinic and inpatient chemotherapy infusion nurse for five days to observe workflow, hazardous drug safe handling, chemotherapy orders, administration process, and patient teaching. To provide continuous unit support; a preceptor was identified and trained to practice as the clinical expert. Finally, an annual competency curriculum was implemented for ongoing educational needs. Evaluations were completed by nurses that attended the orientation program. Feedback from the evaluations indicated that staff valued the oncology specific education. There was a decrease in medication

administration errors since the implementation of the new oncology orientation curriculum as well as an increase in staff satisfaction and improved patient safety and outcomes. By initiating and providing a tailored oncology orientation curriculum to nurses, there was an increase in nurse satisfaction, reduced turnover rate, and improved patient safety and outcomes. The nurse educators are now responsible for the education, including orientation, skills and competency development, of nurses hired onto the oncology unit.

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### **STRATEGIC INITIATIVES TOWARD SUSTAINABILITY IN MANAGING ORAL CHEMOTHERAPY**

**Thu Janes, DNP, MS, RN, NE-BC, University of Kansas Hospital System Cancer Center, Westwood, KS; Adam Neigberger, MPH, University of Kansas Cancer Center, Westwood, KS; Amy Belton, MBA, MSN, RN, CPN, PCMH CCE, University of Kansas Cancer Center, Westwood, KS; Julianne Brogren, MSN, RN, OCN®, University of Kansas Cancer Center, Westwood, KS**

**Category:** Coordination of Care

As a learning organization, our primary focus is transforming cancer practice to deliver the safest care with the highest quality. In our quest for improvement, we adopted the Lean methodologies, including the Lean Management System, key principles of which include continuous improvement and respect for the people (both our workforce and patients). Striving for improvement means constantly exploring ways to enhance how projects are managed; tasks are delegated; the team collaborates; and customer service is delivered. We continuously explore ways to improve every aspect of the business to deliver world class care. Within cancer care, standard work for intravenous administration processes have been set and solidified. On the other hand, oral chemotherapy process management is new to the industry. Because of a significant patient safety event related to oral chemotherapy prescribing and refill processes, we organized a Kaizen workshop. Cancer Center staff were convened in a Kaizen workshop and challenged with developing innovative and strategic solutions to strengthen oral chemotherapy safety practices. The ideas developed during that workshop, required ongoing PDCA cycles and workgroup activities. Building an infrastructure to sustain this work, meant shifting the mindset from the workshop team leaders inheriting ownership of post workshop improvement work to transitioning to specific process owner(s) identified pre-workshop to maintain and sustain the work. A steering committee focused on oral

chemotherapy was convened to provide oversight and sponsorship of improvement activities. Finally, standardized education methodologies were implemented (such as Training within Industry, or TWI). As part of continuous improvement, processes as tested to pass a rigorous series of inspections before being completed. This, in turn, ensures that every product is delivered with the same level of quality. Employees know that, regardless of whatever auxiliary objectives the team has, the goal of the project is always to strive for improvement. The best ideas come from the people on the ground, closest to the work. It is the employees who have the experience working with the product, so they know what does and doesn't work. Giving employees a voice in the planning and implementing process of project allows them to express their opinions, solutions and the opportunity to share ideas.

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### **EVALUATING THE NURSING PERCEPTION OF A DESIGNATED FLOAT NURSING STAFF POOL FROM AN INPATIENT ADULT HEMATOPOIETIC STEM CELL TRANSPLANT UNIT TO AN OUTPATIENT ADULT HEMATOPOIETIC STEM CELL TRANSPLANT CLINIC**

**Haesu Jin, BSN, RN, BMTCN®, Duke Cancer Institute, Division of Cellular Therapy, Durham, NC; Nancy Austin, BSN, RN, BMTCN®, Duke Cancer Institute, Division of Cellular Therapy, Durham, NC; Martha Lassiter, MSN, RN, BMTCN®, AOCN®, Duke Cancer Institute, Division of Cellular Therapy, Durham, NC**

**Category:** Coordination of Care

Increased number of patients are being treated with hematopoietic stem cell transplant (HSCT) for various hematological malignancies. Due to the changing landscape of oncology practice, more care is being provided in an outpatient setting than in the inpatient setting. The increased demand to move care for the HSCT patient to an outpatient setting has created a growing need for HSCT competent nurses in the outpatient clinic. To meet this growing need, our adult HSCT inpatient unit, in an academic medical center, has developed a designated float nursing staff called float champions to help with growing nursing needs in the outpatient HSCT clinic. This study aimed to explore the nursing perceptions of the float champion program. Two separate surveys were constructed for the inpatient HSCT unit and the outpatient HSCT clinic and emailed to all nursing staff. Surveys were collected for 2 weeks and results were reviewed. Survey participation was high, with 56% (23 of 41) of inpatient nurses and 86% (18 of 21) of outpatient clinic nurses participating in the survey. The

survey revealed perceptions of improved workflow and decreased workplace stress for outpatient clinic nurses. Outpatient nurses also reported improved continuity of care for patients. Inpatient float champion nurses reported perceptions of decreased moral distress, widened nursing skills, increased competency while caring for patients in an outpatient setting and improved understanding of the hematopoietic stem cell transplant process. Additionally, the survey revealed a gap in orientation that has been shared with leadership. Other outcomes assessed include comfort of the clinic nurses with float champion nurses and comparison between hospital float pool nurses and float champion nurses. A designated float pool of HSCT nurses can benefit the inpatient staff, outpatient staff, while enhancing continuity of care and patient safety.

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### PROFESSIONAL PATHWAYS TO PROPEL THE POWER, PASSION AND PURPOSE OF THE ONCOLOGY NURSE

Judy Johnson, RN, MSN, OCN®, BMTCN®, Vanderbilt University Medical Center, Nashville, TN; Linda Dial, RN, MN, AOCN®, ACNS-BC, Vanderbilt University Medical Center, Nashville, TN

Category: Professional Development

Are your nurses stifled at the bedside while longing to develop the skills to propel them into the pathway of their passion? Are you at a loss for how to help them discover the steps to move in that direction? Many organizations offer a clinical ladder to direct those that desire the clinical expertise, and some offer leadership development for those seeking a management track. What about those attracted to research or nursing education? Often front line leaders do not have tangible tools to direct discussions with specific guidance. The Developmental Pathway provides a tool to guide oncology nurses at the bedside toward leadership/management, education/professional development, research, or clinical excellence based on their interests. The strategic path, helps them define, clarify, and work toward their professional goals without leaving their current positions. Each pathway track provides a visual display of the tier progression focusing on goals, needed skill development, adjunct curriculum to develop those skills, and area specific tasks to practice and hone those skills. During annual or midyear conversations, one-up leaders can discuss staff individual goals for professional growth, and collaboratively identify a correlated pathway for that individual. The staff pathway is then communicated to the education specialist (ES) to enroll the individual in the Learning Management system and

open the first tier, so they can begin working on the associated activities. When completed and validated by the ES, the leader is notified. A coaching session is then scheduled with the staff member to discuss continued appropriateness of the pathway and progression to the next tier. The ES then opens the next tier activities and the process is continued through tier three. Areas where this has been implemented have had positive engagement and support from both staff and leaders. Staff felt that they were working toward their goals, and growth contributed to the generic organizational advancement ladder. Leaders appreciated having a tool to help guide their annual conversations in a meaningful way. Clinical areas benefited from the quality improvement, educational offerings, project management and initiation of research possibilities. The pathway goals, curriculum, and area tasks can be modified to specifically translate to the specialty area within the cancer arena. This accommodates varying resources and unique opportunities available at the organization.

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### BUILDING BRIDGES: A MULTILAYERED APPROACH TO COMMUNICATING WITH STAFF

Joy Joseph, BSN, RN, OCN®, Advent Health, Orlando, FL

Category: Professional Development

Keeping a team informed and up to date with changes that occur at both the unit and organizational level can be challenging. It can often require a multifaceted approach to ensure that communication is clear and consistent. In this 80-chair infusion center, there are more than 70 employees spilled into different departments consisting of nursing, laboratory, pharmacy, revenue cycle, and advanced practice providers. This unit represents just a small subset of the organization that employs more than 80,000 employees. With the many working parts of this complex healthcare system, it has become imperative that leaders become creative with how to deliver messages to all team members. Within the infusion center, the leaders needed to develop a communication system that could be adapted to the unpredictability of the workday as well as the variety of professional backgrounds. To maintain a consistent messaging system, a multi-layered approach is taken by the leadership team. The different department leaders send weekly newsletters. This allows each department to receive updates directly related to their specific area of service. All in-person updates are completed utilizing a huddle method. These huddles are no more than 10–15 minutes and given during a low peak part of the day. To ensure that the team as a whole



remains connected, monthly performance platform team meetings are conducted. During these meetings, all departments attend and receive messages from the organization's senior leaders. Additionally, the team is provided with department updates, reminders, and team celebrations are acknowledged. These meetings also include a review of key performance indicators and a mini brainstorming session that provides the team with the opportunity to provide solutions for unit-based variances. At the end of each meeting, the team is asked to provide please and thank you post-its. Pleases are items or questions they have or need and thank you give them the opportunity to give recognition to a fellow team member. Since the implementation of this communication system, the units Glint engagement scores have seen an increase in the areas of feedback and communication scores.

## **225** **CHEMOTHERAPY HANDS ON SIMULATION: AN INTERACTIVE METHOD TO PROMOTE STANDARDIZATION OF CHEMOTHERAPY ADMINISTRATION**

**Glenda Kaminski, PhD, APRN, AOCN®, Lakeland  
Regional Health, Lakeland, FL**

**Category:** Professional Development

The purpose of this project was to standardize the process of chemotherapy administration. With staff turnover, resulting in the hiring of nurses new to the procedures necessary for chemotherapy administration and safety, the inpatient oncology team felt it was time to standardize processes to promote consistent practice among team members. A literature review was performed, and a strategy for standardization was adopted. The Education Department was contacted to discuss procurement of supplies (IV bags, tubing, and pumps, and chest mannequin). Also, the educator would help with arranging for continuing education hours for the program. The Information Technology Team assisted in building a test chemotherapy patient. Demographics, labwork, and orders were placed, so that nurses would have an actual patient to practice their skills on. Also, a patient armband for scanning was created. The Pharmacy Coordinator provided barcodes for medications, to complete the administration simulation experience. Oncology Unit Based Council members met to discuss the components for initial assessment of procedural confidence, so that the findings could be used to construct the simulation experience. A Chemotherapy Skills Confidence Survey assessment was given to all of the RNs before and after the simulation experience. Responses

were graded using a 6 point Likert-type scale, where 1 = Strongly Disagree and 6 = Strongly Agree. As a result of completing the simulation experience, both nurses who hang chemotherapy and those who do not, who work on the oncology unit, increased their confidence in providing appropriate and safe care to the patients. Providing hands-on simulation significantly improved the nurses' level of confidence related to eight specific areas of chemotherapy administration skills: checking and verifying calculations for doses; safe handling/ use of personal protective equipment; documentation of chemotherapy administration in the electronic health record; creating a chemotherapy protocol worksheet; administration of intravenous chemotherapy and biotherapy; management of vesicant extravasation; management of chemotherapy spills; and providing chemotherapy teaching to patients. Prior to simulation, the lowest score for nurses with chemotherapy experience was related to management of extravasations with vesicant drugs. After simulation, confidence was lowest in the areas of verifying calculations and management of extravasation, with mean score of 5.38. Oncology unit leadership will continue to monitor for the effect related to standardization of chemotherapy administration procedures.

## **226** **DELAYED USE OF HOSPICE AND PALLIATIVE CARE: WHAT'S THE EVIDENCE TELLING US?**

**Jody Kampa, MSN, RN, OCN®, M Health Fairview,  
Wyoming, MN; Kristen Sandau, PhD, RN, CNE, FAHA,  
FAAN, Bethel University, St. Paul, MN**

**Category:** End of Life

Although research supports palliative care for improving symptoms and quality of life among patients with terminal illnesses, palliative care and hospice services are underutilized. Earlier referral to palliative care or hospice care can improve symptom management and facilitate end-of-life wishes. However, multiple barriers prevent student nurses, practicing nurses, and patients and caregivers from having conversations about end of life wishes. A critical review of literature was conducted to identify evidenced-based strategies among nurses that may encourage earlier enrollment of patients into hospice and palliative care. The databases CINAHL Plus, PUBMED, Science Direct, and Scopus were searched using the terms: hospice care, palliative care, terminal illness, nursing barriers, EOL, and nursing education. Studies were included (n=18) if they focused on care by nurses of adult patients, and were published between 2010 and February

2019. Interventions to promote earlier discussions and enrollment into palliative care and hospice were identified, most commonly focusing on education: classroom lectures, case studies, clinical and role playing experiences. Key interventions targeting nursing students include core curriculum in school based on guidelines from the National Hospice and Palliative Care Organization as well as experiences caring for patients who are terminal (either in clinical settings or through simulations). Key interventions targeting practicing nurses should include orientation programs that include end-of-life care. Oncology nurses, in particular, should have guidance for how to have end-of-life conversations with terminally ill patients and their families, as well as related ongoing education to assure related competencies and how to function as a collaborating member of the interprofessional care team. Key interventions for patients and family members include clear teaching about what to expect as the disease progresses. Patients and families should be encouraged by nurses to ask questions and share concerns. Finally, interprofessional simulations can help clinicians deliver the same messages to their patient and family members to prevent ambiguity on whether or not to pursue aggressive, futile treatments that may prolong life and pain. Although the end of life is a challenging time for patients and caregivers, there is a growing body of expertise to enhance quality of life and symptom management; hospice and palliative care can deliver this expertise. Connecting patients and caregivers to receive this expert knowledge should be a priority that oncology nurses embrace.

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### **DEVELOPING EVIDENCE-BASED PRACTICE MENTORS THROUGH FELLOWSHIP PROGRAMS**

**Mary Louise Kanaskie, PhD, RN-BC, Penn State Health Milton S. Hershey Medical Center, Hershey, PA**

**Category:** Professional Development

The Oncology Nursing Society is a leader in evidence based practice (EBP) providing clinicians with tools to assist in clinical decision-making. Despite the available resources, nurses are sometimes challenged in meeting the basic competencies related to EBP and implementing the best available evidence. The purpose of the EBP Fellowship is to develop nurses' knowledge and skills in the use of evidence to guide clinical and leadership decisions. Influenced by the Advancing Research and Clinical Practice through Close Collaboration Model (ARCC), the EBP Fellowship is focused on development

of mentors to support implementation. An academic medical center's readiness assessment revealed EBP to be an imperative within nursing's strategic plan and supported by nurse leaders; yet not fully integrated into clinical practice. Congruent with the ARCC model, an EBP Fellowship was designed to develop mentors to facilitate the clinical integration of evidence into clinical decision-making. Curriculum includes searching and analyzing evidence, developing project management skills, and monitoring and evaluating change. Real time assistance is provided as fellows develop ideas and explore implementation strategies. In year one, an EBP Fellowship for nurse leaders was offered generating projects that successfully improved quality and patient safety. Building on lessons learned, in year two, an EBP Fellowship for clinical nurses was developed. This program, comprised of a three day immersion, provides clinical nurses the opportunity to jump start their EBP projects. Professional colleagues provide expert instruction and guidance throughout the three day program and include the medical librarian, experts in case management, and data specialists. Fellows receive assistance from course facilitators with project implementation for the first six months. Implementation of EBP is multifaceted and complex. EBP Fellowships are one innovative way of bridging the gap in implementation and in developing EBP mentors to foster group support among clinicians and nurse leaders.

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### **THE BEST PROGRAM: PUTTING YOUR BEST FOOT FORWARD FOR YOU AND YOUR PATIENT**

**Justin Kelly, BSN, RN, CCRN, RHIA, OSUCCC-James Cancer Hospital, Columbus, OH; Chris Rizzo, BSN, RN, CCRN, OSUCCC-James Cancer Hospital, Columbus, OH; Katherine Cochran, BSN, RN, CCRN, OSUCCC-James Cancer Hospital, Columbus, OH**

**Category:** End of Life

Compassion fatigue and moral distress have been part of the health care literature for the past several years. Compassion fatigue has been shown to be pervasive in all disciplines. Nurses who develop compassion fatigue are at risk to leave their place of employment and the nursing profession. Moral distress is a predictable response to situations where there is a moral problem presented to nurses and a feeling of responsibility to do something about it but cannot act in a way that preserves their integrity. Both compassion fatigue and moral distress results in losses of staff which have high economic costs to health care system and to the nursing profession. The innovative

Brief Emotional Support Team (B.E.S.T)<sup>®</sup> training program provides the necessary tools for staff experiencing moral distress and compassion fatigue to remain in their nursing practice without the negative effects of burnout. Brief Emotional Support Team (B.E.S.T)<sup>®</sup> training was designed to meet the emotional challenges that all healthcare providers face. BEST Training is built to enhance caring relationships including care of patients/families, colleagues, and self. The training class teaches skills based in the neuroscience of compassion. Participants reframe years of clinical practice to understand how they can apply their professional wisdom to process and address difficult practice situations unique to their environment. This program increases self-awareness, provides assurance, and reframes negative self-assumptions following challenging work experiences and allows colleagues to support each other in any situation, especially when it comes to moral and ethical issues. Communication between members of the care team will develop an empowered model of compassionate care. Six 4-hour educational programs were offered in 2018, totaling 333 Peer Supporters originating in October of 2015. A total of 47 units/departments and 31 roles have adopted this training as their Relationship Based Care—Caring for their colleague commitment. This session will discuss the development and maintenance of an emotional support team at an academic medical center. This team identifies staff who are at risk for compassion fatigue. The program provides a bundle of interventions, that when implemented, have been shown to decrease compassion fatigue across all disciplines.

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### CREATIVE STAFFING SOLUTIONS FOR INPATIENT ONCOLOGY IN ACUTE CARE CENTER

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Category: Professional Development

The growing nursing shortage, numerous nursing opportunities outside hospital setting, and the desire for daylight schedules often takes nurses away from the bedside to travel positions or outpatient areas, thus leaving the hospital to be continuously training new nurses. In oncology, this trend of new hire

growth is particularly challenging given the specialized training necessary for safe administration of chemotherapy, biologics, and cellular therapy. UPMC Shadyside a 517-bed acute care hospital in Pittsburgh, PA focusing on state-of-the-art hematological and cancer immunotherapy with 116 inpatient oncology beds spread over 4 units (medical-oncology, hematology-oncology, leukemia, and bone marrow transplant), a same day infusion area, and large outpatient cancer center nearby. Added demands, such as complicated inpatient cancer clinical trials, FDA approval of CAR T-Cells, and use of biologic agents beyond cancer diagnoses have challenged the institution to maintain adequate staff of trained oncology nurses. The purpose of this project was to deploy creative staffing solutions for an urban acute-care hospital to accommodate growing oncology population with high acuity needs, to retain experienced oncology nurses in the inpatient setting, and to increase overall oncology staff satisfaction. Creative staffing solutions included: (a) Resource Oncology (ROC) Nurse—The ROC nurse rounds in oncology as extra support for patient care needs, patient flow, nurse transportation, chemotherapy infusions outside oncology, chemotherapy desensitizations, and chemotherapy skills. (b) Oncology Research Float Pool (ORFP)—The ORFP is a subset of nurses from the resource pool that are experienced in chemotherapy and crossed-trained on all oncology units. ORFP was created to provide flexibility in staffing inpatient research protocols. (c) Oncology Rotational Program—A yearlong program for new nurses interested in becoming oncology nurses. They complete rotations and observational experiences in hematology, solid tumors, leukemia, transplant, surgical oncology, ICU, and outpatient areas. The impact of these staffing solutions has already retained several experienced oncology nurses in the hospital setting who were looking for other positions. 3 nurses were accepted into the ORP set to complete their first year in summer 2020. The expansion of one or more of these positions could be useful for other hospitals to maintain trained oncology nurses at the bedside during this very exciting time in cancer care.

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### CONNECTING THE DOTS: POSTOPERATIVE CONSIDERATIONS FOR ADULT/PEDIATRIC ONCOLOGY PATIENTS

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Category: Professional Development

Novice nurses assigned to work in a specialty adult or pediatric oncology unit may be limited to the types of post-operative patient population he or she may care for. Direct observation and a survey of novice clinical staff helped to identify a need for further education to alleviate disconnect and expand critical thinking. A collaboration with nursing educators, leadership, and clinical development specialists identified a need for further education to alleviate disconnect in the “how” and “why.” “Connecting the Dots” (a one day course focused on specific post-operative and post procedural patients) was created to help aggregate nursing orientation, theory, and clinical knowledge in the novice nurse. The purpose was to collaborate with novice adult and pediatric oncology units to identify an opportunity to improve post-operative and post procedural knowledge, skills, and critical thinking through a one day course that focused on an array of common surgical procedures and age-specific assessment. Based on feedback from novice and experienced staff, direct clinical observation, and safety events, we developed “Connecting the Dots” one day program. The class focused on didactic and skill validation required for high acuity adult and pediatric oncology patients and included 25 nurses from various specialty areas including PACU, inpatient, operating room, and pediatrics. The class included flap assessment, regional blocks, pediatric postoperative assessment, gastrointestinal surgical cases, enhanced recovery protocols, malignant hyperthermia, recovery scores, and fast track patients. Formative and summative assessments were done to evaluate the effectiveness of the class. Post assessment results indicate a minimum of 20% increase of assessment and nursing interventions based on the course content. Implementation of “Connecting the Dots” class for novice adult and pediatric oncology nurses to collectively “connect” both the clinical and theoretical nursing will assist in decreasing knowledge deficits, collaborate outside their assigned specialty, and enhance professional development. This project improved the teamwork, professional development, and collaboration of novice adult and pediatric oncology nurses for patients in the immediate post-operative recovery period.

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### CANCER CARE CLOSE TO HOME: AN ONCOLOGY NURSE LEADER HARNESSSES

### THE POWER OF A MULTI-DISCIPLINARY TEAM TO OPEN A NEW CHEMOTHERAPY INFUSION DEPARTMENT

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Category: Professional Development

As health systems expand across geographic areas, local healthcare facilities strive to maintain their identity and relationships with their communities. A mission-based, not-for-profit integrated healthcare system that maintains a steadfast commitment to the communities it serves provides cancer care across northwest Ohio and southern Michigan. The system has initiated four new infusion programs over a period of 4 years. This task required implementation periods ranging from 90 days to 9 month. The oncology nurse leader played a vital role in leading the team and developing the model to provide nationally recognized cancer care infusion services to local communities. The purpose is to describe the development and process for implementing regionally based cancer infusion services. In the integrated health system, a network of experts is able to connect cancer patients to vital treatments and support resources. These services require minimal capital expense yet meet critical patient needs. Oncology Nurse Leaders used the nursing process to developing a coordinated approach with key stakeholders. These invested participants included administration, pharmacy, infection prevention, environmental services, lab, dietary, registration, radiology, facilities, information technology and accreditation specialists. Strategic milestones with agreed upon timelines were established. A cadence of weekly touch points were set to track outcomes. Oncology Nursing Society guidelines along with regulatory standards were reviewed. The development of a workflow and checklist systematized the steps of the project to ensure success. The weekly meeting summaries were reviewed. Completed tasks were compared to the checklist. Administrative team members addressed barriers so that the project deadline was met. All strategies focused on the goal of implementing a regional cancer infusion center. Lessons learned were identified throughout the process so that specific adjustments could be made to the plan based on unique community characteristics. The regional cancer infusion center opened. The multi-disciplinary team led by the oncology nurse leader kept the cancer patients as the primary focus. Weekly meetings and utilizing a checklist to organize the workflow maintained structure for the project. Challenges included

ensuring participation of represented departments at each meeting, keeping the discussion milestone focused and ensuring adequate time for ancillary department work to be completed. Alternate representatives, negotiating time frames for task completion and basic meeting ground rules for weekly touch points are considerations for future projects.

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### **TO CERTIFY OR NOT TO CERTIFY? IS IT REALLY A QUESTION?**

**Denise Lahoski, MSN, RN, CPHON<sup>®</sup>, Akron Children's Hospital, Akron, OH; Jill Cirese, BSN, RN, CPON<sup>®</sup>, Akron Children's Hospital, Akron, OH**

**Category: Oncology Nursing Practice**

Obtaining certification is an overwhelming task; however, certification has been proven to improve patient outcomes. Previous attempts to increase hematology/oncology certified nurses have not been successful even though education and financial support have been offered. These efforts consisted of a free yearly certification review course with pay, four hours of paid independent study time, continuing education offerings, and reimbursement of the cost of the exam. Nurses either accepted the support and would not register for the certification exam or would register and not pass the exam. Following the 2018 two-day review course, only one of six RNs registered, attempted, and then failed the test. After identifying barriers which included cost, lack of time to prepare for the exam, fear of failure, knowledge deficit, staffing issues, and lack of hem/onc continuing education efforts were increased to overcome these barriers and get more nurses certified. Examples of Interventions included a kick-off campaign to appreciate the nurses that were certified with a small gift and to promote/provide professional membership to APHON. The two day class that was offered once a year limited the number of nurses that could attend due to staffing. Therefore, we changed the class to two one-day classes with independent study modules and CE. The company Nurse Builders was brought in to do the education to ease the load of the staff facilitators. The department paid for the class entirely but the nurse had to either use and education day or come on the day off. The department also contracted with ONCC for the free take program, so no nurse would have to pay and the fear of failing was lessened with the opportunity to take it again for free. To date triple the number of attendees registered for the review course and commitment of greater than ten RNs to register for the exam, which shows employer support is essential for certification

success. Every nurse has his/her own legitimate reason for not obtaining certification. With employer support to overcome the barriers, certification can become a reality for every nurse in the hematology/oncology department. Restructuring the way we offer, pay for, and support certification has evolved in 2019. The blended didactic and elearnings content further supports success.

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### **CREATING AN ONCOLOGY-SPECIFIC EDUCATION SERIES FOR UNLICENSED ASSISTIVE PERSONNEL**

**Karla Lambson, MSN, RN, OCN<sup>®</sup>, Duke Cancer Center, Durham, NC; Eileen Horn, MSN, RN, OCN<sup>®</sup>, Duke University Health System, Durham, NC; Alice Maupin, MSN, RN, OCN<sup>®</sup>, AGCNS-BC, Duke University Health System, Durham, NC**

**Category: Professional Development**

Within an academic health system, a learning needs assessment identified the need for educational opportunities to be offered to oncology Unlicensed Assistive Personnel (UAP). This health system has not historically dedicated oncology education to UAPs. Few studies within the literature address educational interventions for UAPs. However, studies that conducted UAP educational interventions were found to be beneficial. The purpose was to develop an educational series to meet the learning needs of oncology UAPs within a large academic health system. Nurse Educators, Clinical Nurse Specialists, and nursing leadership formed a workgroup to review results of learning needs assessment, in which 74 UAPs participated. Themes were identified as educational opportunities. The workgroup developed UAP educational series and session content. Obtained CE credit for qualifying sessions. Marketing through flyer distribution. Participants averaged 11 per class, totaling 69 over 6 sessions. Videoconferencings made available for those that could not attend in-person. Four of six programs offered CE credit. Program evaluations distributed for sessions with CE credit. 100% of participants rated effectiveness of each program as "excellent" or "good" in achieving objectives; over 90% rated speakers "excellent." Feedback indicated sessions were informative and applicable to daily practice. Participants identified desire for additional sessions. Continual evaluation will occur by repeating needs assessment and comparing data from previous year. The creation of this series demonstrated a commitment to advancing professional growth of oncology UAPs. Found difficulty offering sessions at a time convenient for UAPs. Found challenges engaging inpatient

staff due to shift schedules. Engagement may be increased by marketing to inpatient teams and utilization of clinical ladder.

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### **TRANSITIONING GAMMA KNIFE TREATMENT FROM A HOSPITAL-BASED TO FREE-STANDING PROGRAM**

**Pamela Laszewski, BSN, RN, OCN<sup>®</sup>, Karmanos Cancer Center, Detroit, MI; Morris Magnan, PhD, RN, Karmanos Cancer Center, Detroit, MI**

**Category: Oncology Nursing Practice**

Gamma knife is a radiation treatment used to treat brain tumors both benign and cancerous, arteriovenous malformations, trigeminal neuralgia, acoustic neuromas, and pituitary tumors. Gamma knife programs have been traditionally hospital based programs. The complexity of gamma knife radiation requires input from a multidisciplinary team. Typically, team members include a radiation oncologist, radiation nurses, a neurosurgeon, physicists, radiation therapists, MRI technologist, pharmacists, and support staff. To ensure optimum functioning of the team and effective patient outcomes, the roles of the multidisciplinary team members in care planning and delivery must be clearly negotiated and defined. When functioning effectively, multidisciplinary teams convey many benefits to patients and health professionals. These include improved health outcomes, more efficient use of resources, and enhanced job satisfaction for team members. Recently, our management team decided to transition our current hospital-based program to our freestanding satellite facility in the suburbs. This transition led to on-boarding of new personnel and reconfiguration of the multidisciplinary team; which posed a threat to the optimum functioning of the team. The purpose of this nurse-led educational program was to preserve the optimum functioning of the multidisciplinary team by orienting team members to new clinical governance structures, policies and procedures, clarifying roles, and delineating protocols for communication and interaction between team members. A nurse-led educational program was developed and implemented with input from quality assurance and infection control. Radiation oncology nurses met with multidisciplinary team members to educate them about the specific needs of gamma knife patients and to orient them to the new governance structure, new protocols for communication and new policies and procedures. Patient needs from time of initial consultation to day of treatment and follow up care were covered during each educational session.

To date 33 patients have been successfully treated at our satellite location. Retraining of some of team members on the specific needs of the neuro-oncology patient was needed to ensure a positive patient experience. The program was objectively evaluated by an outside consultant firm and received positive feedback. Transitioning complex treatment programs to a new location can be disruptive. Oncology nurses are well-positioned to be proactive leaders in preserving the optimum functioning of multidisciplinary teams.

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### **THE GERI AND ME NURSING FUND: A MODEL FOR NURSES SUPPORTING NURSES**

**Christine Liebertz, MSN, NP, AOCNP<sup>®</sup>, Memorial Sloan Kettering Cancer Center, New York City, NY; Catherine Finlayson, PhD, RN, OCN<sup>®</sup>, Memorial Sloan Kettering Cancer Center, New York, NY; Helen Loumeau, MA, NP, AOCNP<sup>®</sup>, Memorial Sloan Kettering Cancer Center, New York City, NY; Maryellen O'Sullivan, MA, RN, OCN<sup>®</sup>, Memorial Sloan Kettering Cancer Center, New York City, NY**

**Category: Professional Development**

An obstacle for nurses who want to conduct research, evidence-based practice (EBP) and professional development projects is funding. The Geri & ME Nursing Fund was developed a decade ago to pay tribute and honor two Memorial Sloan Kettering Cancer Center (MSKCC) nurses who were simultaneously diagnosed with cancer. With these nurse's guidance the fund was developed to provide financial support to nurses within MSKCC who are looking to do research, EBP or professional development projects with the goal of improving patient care. Geri & ME raises money through multiple sources: Fred's team (New York City marathon), annual fundraiser, t-shirts sales and donations from patients and families. The board includes 10 Advanced practice nurses and registered nurses from various specialties within MSKCC who coordinate all activities: fundraising, grant review and outreach. Applications are scored based off NIH criteria, merit and alignment with institutional initiatives. Applications are accepted bi-annually. Each application is blindly reviewed by two internal experts. The reviewer's feedback is presented to the board with their respective recommendations for funding. It is the board that ultimately determines which application gets funded and for what amount. If an applicant does not receive funding for their initial proposal, feedback is provided based on reviewer and board comments, and applicants are encouraged to re-apply. Geri & ME has raised close to \$1 million dollars and has allotted \$600,000 to over 40 different

projects, including multiple internal review board approved nursing research protocols. Professional development projects have included standardizing methods for educating patients (fertility & safe sex during chemotherapy), communication workshops for breaking bad news and dealing with sexuality, development of a cardiology surveillance program, comfort carts for families of dying patients and designing a unique gown for patients with peripheral indwelling catheters, to name a few. Manuscripts have been published in a variety of peer reviewed journals along with multiple oral and poster presentations at local and national conferences including Oncology Nursing Society and American Society of Clinical Oncology. Geri & ME continues to improve on developing a structure for nursing research, professional development, methods to engage staff to utilize funds and fundraising activities. This is a model that other nurses could adapt in their institution to promote and support nursing innovation and scholarship.

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### **GROWING ONCOLOGY NURSES**

**Elaine B. Llanos, MSN, RN, OCN<sup>®</sup>, Rockland County Chapter Oncology Nursing Society, Suffern, NY**

**Category: Professional Development**

The Oncology Nursing Society (ONS) 2015 position statement “The Impact of Nursing Workforce Issues on Quality Cancer Care” includes a bulleted list of ways to address the continued need for oncology nurses, with one item specifically linking academia to professional organizations. Recognizing that content focusing on the care of cancer patients is not sufficiently included in undergraduate nursing curriculum, it is incumbent upon oncology nursing professionals to use ourselves as a vehicle to reach these students. From inception of our ONS Chapter, board members moved to include students and faculty from the three local colleges that offer a nursing major. Helped tremendously by the decision of ONS in their celebratory 40th year to offer free membership to all pre-licensure nursing students, we now have active student members and have created the “Student Nurse Liaison” (SNL) role. Having a nursing student liaison between school and our professional organization offers tremendous opportunities for the student and our Chapter as well. Using the tenets of transformational leadership, a program was developed to accept one SNL from each College of Nursing. Solicitation was done via e-mail to the Deans and in person at monthly Chapter meetings. Requirements and role expectations of each SNL along with our

board members’ responsibilities towards them were described. A 7-question pre and post position survey were included for each SNL, with space allowed for free text comments. We accrued two SNLs this first year, although for a shorter term than planned. However, results of the surveys were positive, as was the experience for all involved! We are continuing this initiative and hope other ONS Chapters will adopt it and then adapt it to their own local circumstance. Welcoming students to participate in our professional organization at a local level is a fruitful way to Grow Oncology Nurses!

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### **DEVELOPING A CLINIC NURSING TEAM MODEL OF CARE IN AN AMBULATORY ONCOLOGY SETTING**

**Janice Lloyd, MSN, RN, OCN<sup>®</sup>, Seattle Cancer Care Alliance, Seattle, WA; Sydne Mead-Smith, BSN, RN, OCN<sup>®</sup>, Seattle Cancer Care Alliance, Seattle, WA**

**Category: Coordination of Care**

At our NCCN-designated Cancer Center, the Clinical Nurse Coordinator (CNC) role is integral to the oncology patient’s treatment journey. The CNC works closely with the oncologist and maintains responsibility for that entire patient panel. The CNC establishes therapeutic relationships with each patient by providing education, coordinating care and triaging issues. While it is a fulfilling role, the challenges have been the CNC “being pulled in too many directions” and “owning” all of the care coordination for large patient panels, often without a system to get support from nursing colleagues. The purpose was to re-design the CNC model to create disease-specific nursing teams to: (1) create a system to level-load workloads thereby increasing work satisfaction and (2) develop “nursing specialists” within the Heme Onc sub-specialties, who would then develop processes to improve patient care. The decision was made to align each CNC to work within one sub-specialty of HHM—lymphoma, multiple myeloma, AML, MDS, non-malignant hematology. The nurses working within that sub-specialty, were co-located and encouraged to work collaboratively as a disease-specific team. The CNC’s maintained the one-to-one primary role with a provider and that provider’s patients, which was very important to the provider, CNC and patients. The teams huddle each AM to review workload volumes and develop a plan of support. They developed systems to communicate as needs change throughout the day. The nurses developed systems for responding to phones/emails based on availability –improving the responsiveness

for providers and patients. The team meets with the nurse manager bi-weekly to review: team communication, overall work volumes, areas for improvement, and explore/develop best practices. The development of Disease-specific CNC “teams” has shifted the approach to care coordination in the CNC role. Nurses retain a primary relationship with providers and patients however they have greater support from their peers to be able to handle the many different demands of their role. This has improved their job satisfaction. A key to success is effective communication and complementary work styles. Providers recognize the disease team nurses as nursing experts and work collaboratively with each team nurse. The nursing teams are beginning to identify process improvements within their teams, to improve workflows. There is current interest in developing disease-specific patient education tools and information.

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### **IMMUNOTHERAPY BINDER**

**Guadalupe Luna, RN, William Beaumont Army Medical Center, El Paso, TX; Nicole Fill, BSN, RN, William Beaumont Army Medical Center, El Paso, TX**

**Category: Patient Education and Safety**

Immunotherapy treatment is a new therapy that harnesses the patient’s own immune system to combat his or her cancer. However, patients aren’t familiar with how this treatment works and the side-effects that can potentially develop. Many patients believe this treatment is traditional chemotherapy or cytotoxic treatment. We developed an immunotherapy education binder to educate patients and their families about how this novel therapy works and the potential side-effects that can develop with the treatment that are profoundly different from traditional cytotoxic chemotherapy. Developed an educational tool in the form of a binder filled with important information pertaining to immunotherapy, potential side-effects that may occur, and important hospital information. After the patients have been educated about immunotherapy and received the binder, we evaluated if there was improved patient satisfaction about the administration of immunotherapy and less anxiety about this treatment. We observed that patients were reporting side-effects of their immunologic therapy earlier which allowed treatment to be administered more effectively. In addition patients have reported a greater understanding of the differences between chemotherapy and immunotherapy. As a result, once the side-effects resolved, patients returned to their treatments faster with better clinical

results. We advocate that all patients receiving immunologic therapy should receive these immunotherapy education binders prior to the administration of these medications. We feel that the more educated the patient becomes the less adverse outcomes he or she will experience.

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### **THE INTEGRATION OF A PROFESSIONAL DEVELOPMENT TEAM IN AN OUTPATIENT ONCOLOGY SETTING**

**Lorraine Mack, APN/MSN, CNL, OCN®, AOCNS®, Northwestern Medicine, Warrenville, IL; Kristen Geroulis, MSN, RN, CMSRN, Northwestern Medicine Cancer Center, Warrenville, IL**

**Category: Professional Development**

In 2010 Robert Wood Johnson Foundation Initiative on the Future of Nursing at the Institute of Medicine (IOM) Committee recognized the importance of prelicensure and ongoing education for nurses in a health system striving to constantly improve patient outcomes. In an ever changing healthcare environment having a structured educational system is key in growing and nurturing both experienced and novice nurses. In the west region of Northwestern Medicine Cancer Centers a structured Professional Development team was introduced into this outpatient setting. The team consists of an Oncology Clinical Nurse Specialist and a Professional Development Specialist. The team is responsible for four facilities and a Proton Center. All education for all sites is developed and coordinated by this team. Between all the sites we support 110 nurses, 30 APNs, 30 Medical Assistants, 40 Radiation Therapists and 50 Patient Service Representatives. Each site has their own set educational day each month that includes topics determined by the team in collaboration with the sites. It can consist of new products, new initiatives, new evidence based procedures, OCN requirements, as well as refreshers of current procedures. Each month as well there is a Coffee with a Doctor session that is rotated from site to site. Also, around 80% of our educational sessions are offered with CNE attached. We also develop and conduct yearly competencies for all our sites. As education is presented evaluations are completed by all attendees and we ensure that we show an increase in knowledge. The average increase has been around 1.02 increase from before to after education. Our needs assessments are driven by these evaluations or a survey monkey which are sent out periodically to the teams. Coordinating education for all these sites forces us to be innovative with our delivery



method. All education is available by phone to all sites and we also use web-ex. We have introduced across the system journal club and utilize our computerized education system as well. As we are seeing more treatments being completed in an outpatient setting it isn't imperative that these nurses are also supported by an educational team as well. There is a wide range of nurses from experienced to beginner in our setting so we need to help grow them and increase their knowledge base.

## 289 ORGANIZING CPR RENEWAL ACROSS A LARGE NETWORK CANCER CENTER

Rebecca McClelland, MSN-Ed, RN, OCN®, UPMC Hillman Cancer Center, Pittsburgh, PA

Category: Professional Development

University of Pittsburgh Medical Center (UPMC) Hillman Cancer Center (HCC) includes a large network of cancer centers spread across Southwestern Pennsylvania, into parts of New York, and Eastern Ohio. The education department for the cancer centers is comprised of three clinical education specialists to offer education for staff throughout the UPMC HCC network including, Cardio Pulmonary Resuscitation (CPR). To schedule a CPR renewal for staff, HCC management would call the education department and a member of the education team would travel to the network site to perform CPR recertification. The educators proposed a plan to HCC clinical leadership to improve the scheduling of CPR recertifications at network locations. The plan includes monthly pre-scheduled CPR renewal sessions at a network cancer center location in an effort to improve site specific organization of CPR recertifications through continuity of site CPR certification date. Pre-scheduling allows for a CPR recertification course available to any HCC employee in need of CPR recertification. As a first step, a comprehensive review was completed evaluating the site CPR recertifications that were completed in the past two years. Based on the year and month prior CPR recertification was conducted, a CPR recertification schedule was developed. To supplement months where no CPR renewals were scheduled based on historical data, the education department communicated to the HCC management throughout the network to determine CPR recertification need on a quarterly basis. At the time of site renewals, all staff were recertified at the same time to align the entire office on the same renewal timeline. Due to the nature of CPR expirations and renewals, two years following

the implementation of the new process HCC network is on a more predictable CPR recertification schedule. An educator is scheduled to go to one site each month to recertify the office. The new process has not only saved time for those in the education department but also helped managers at the cancer centers to organize their staff knowing all staff will be certified at the same time every two years.

## 290 SUPPORTING OUR SUPPORT STAFF: END OF LIFE EDUCATION FOR CERTIFIED NURSING ASSISTANTS

Colleen McCracken, BSN, RN, CMSRN, CHPN, OCN®, Froedtert Hospital, Jackson, WI

Category: End of Life

In order to care for patients on a comfort plan of care and understand what palliative and hospice care mean, a certified nursing assistant needs education about these topics. An inpatient oncology/palliative care nurse educator at a large academic medical center created a certified nursing assistant hospice and palliative care course. Historically, new and experienced nursing assistants had no education requirements on this topic prior to caring for patients at the end of their lives. This left a gap in their knowledge and comfort caring for this patient population. A new program was developed to incorporate multimodal learning techniques in a six-hour class. Evaluations of previous programs provided to certified nursing assistants consistently indicated staff were dissatisfied with the lecture-style format of education and were unable to retain the information. Participants requested increased interaction and application relevant to their practice. The purpose of the new course is to provide new and experienced staff basic education to enhance the care provided to patients affected by a terminal diagnosis and to clear up any misconceptions about palliative and hospice care. The course is organized into nine topics: An Overview of Hospice and Palliative Care; Pain and Symptom Management; Ethics; Communication; Spiritual/Cultural Considerations; Child Life Specialist; Loss, Grief and Bereavement; Care at Time of Death and Funeral Preparation. The course includes some didactic lecture, discussions, case studies, question, and answers. Participants complete pre and post questions prior to and after the course to evaluate their knowledge. The goal of this course is to increase the knowledge of certified nursing assistants in an interactive way while appealing to multiple learning styles. Together, participants scored 27% higher on the post questions. In addition,

90% of participants strongly agreed teaching methodologies were appropriate and the information would be useful in their current role. Overall, 90% of participants rated the course as excellent. This course provides new and experienced certified nursing assistants the education they need to effectively care for their patients and families. Mentoring and supporting these staff members through educational programming can help increase staff retention. Other organizations may wish to adopt similar programming to support nursing assistants in ways that appeal to multiple learning styles.

### 301

#### **EFFECTIVE MANAGEMENT OF WORKPLACE INCIVILITY**

**Penne McPherson, EdD, RN-BC, OCN<sup>®</sup>, Centura Health, Littleton, CO**

**Category:** Professional Development

The appalling effects of workplace incivility on the lives of Registered Nurses have been extensively noted in the literature. A qualitative research study conducted in 2017 provided understanding of the destructive effects of workplace incivility on both professional and personal lives. The study revealed that workplace incivility behavior is commonplace and causes destructive professional and personal outcomes; including negative effects on the body, mind and spirit. Additionally, significant financial impact on productivity, employee engagement, and personal and professional wellbeing and patient safety were also noted. The aim of the study was to understand the meaning and effect of workplace incivility experienced or witnessed by RNs. Additionally, the study obtained personal perceptions of the RNs as to positive interventions to stop or prevent such behavior. Participants for this study were RNs who are currently working or have previously worked in an acute care setting and hold either a formal or informal title of leader. A mixture of purposive and snowballing selection process took place to recruit participants. Personal, in-depth interviews were conducted with ten RNs. Understanding and recognizing incivility in the work place is one thing but developing actual strategies to counter it and change the work place environment from uncivil to civil is more challenging. Current evidence suggests that positive interventions can improve uncivil behavior. A common consensus of interviewed nurses was the need to create some type of educational resource to support those who encounter this behavior. This presentation has direct implications for clinical practice as it will provide

practical ideas and resources for healthcare workers to integrate into their work environment that support managing incivility. The resources are applicable to academic and acute/sub-acute care settings. Incivility has been noted as a part of nursing culture since the days of Florence Nightingale. Although it is becoming more recognized and discussed, it continues to be a part of the cultural norm. Providing simple, innovative strategies to address and manage it is the goal of this presentation. Understanding the reasons why it occurs, recognizing it in self and others and then incorporating evidence-based skills into one's practice provide a foundation for future change.

### 302

#### **LET'S START FROM THE VERY BEGINNING: THE BUILDING OF AN ONCOLOGY UNIT**

**Rachel Mea, MSN, RN, OCN<sup>®</sup>, The Hospital of the University of Pennsylvania, Philadelphia, PA; Amy Moore, MSN, RN, ACNS-BC, AOCNS<sup>®</sup>, The Hospital of the University of Pennsylvania, Philadelphia, PA; Kristen Hill, MBA, BSN, RN, CMSRN, The Hospital of the University of Pennsylvania, Philadelphia, PA; Pamela Engle, MSN, RN, OCN<sup>®</sup>, The Hospital of the University of Pennsylvania, Philadelphia, PA; Jacqueline Mellott, BSN, RN, OCN<sup>®</sup>, The Hospital of the University of Pennsylvania, Philadelphia, PA; Kristen Maloney, MSN, RN, AOCNS<sup>®</sup>, The Hospital of the University of Pennsylvania, Philadelphia, PA**

**Category:** Oncology Nursing Practice

With advances in chemotherapy, radiotherapy and cellular therapy treatments, cancer patients are living longer than ever before. As oncology care expands, many healthcare institutions are in need of additional inpatient oncology units and staff to care for these patients. In 2015, an academic medical center identified the need to increase their inpatient oncology space from 92 to 121 beds in order to accommodate the growing inpatient population. At least 65 nurses and 15 CNAs would need to be hired to staff an additional 28-bed medical oncology unit. Many of the staff hired were new to practice nurse, new to the organization, with the majority of them new to oncology. Beyond unit and system orientation, RN staff required education and training to care for the liquid and solid oncology population, chemotherapy/biotherapy administration, and oncologic emergencies. In order to structure oncology clinical judgment and skills of nurses, leadership partnered with a sister oncology unit, the float pool staff, and several experienced oncology nurses imbedded in the staff of new-to-practice nurses. Utilizing a "Plan-Do-Study-Act" (PDSA) continuous improvement

process, gap areas of practice were identified based on patient census and staff feedback. Education was provided using case studies, in-services, learning modules, supplementing the standard oncology orientation that was provided by the hospital. Preceptors and preceptees met with the clinical practice leader of the unit during orientation to ensure competencies were completed, and that oncology practice and skill was at a safe level of autonomous nursing practice. From 10/2015 through 10/2018, 76 nurses were hired and trained. Each nurse successfully completed orientation, ONS chemotherapy/biotherapy certificate training, and completed onboarding competencies for oncology nurses. To date, 15 nurses have obtained Oncology Certified Nurse certification. Additionally, nurses on the unit now share responsibility holding the Oncology Phone with the hospitals' other oncology units; through the Oncology phone, nurses administer chemotherapies and provide oncology care and education for ectopic oncology patients throughout the hospital. Building oncology nurses' skills, clinical judgment and practice requires consistent education, staff buy-in and support through multiple modalities that are essential to the successful creation of a new oncology unit. Increasing inpatient capacity for specialized oncology care in an academic center with limited experienced nurses in both practice and oncology care.

### 304

#### **THE POWER OF SERVICE LINE SYNERGY IN ONCOLOGY NURSING: COLLABORATION ACROSS THE ONCOLOGY CONTINUUM**

Jordan Mellinger, BSN, RN, BMTCN®, Hospital of the University of Pennsylvania, Philadelphia, PA; Kristen Maloney, MSN, RN, AOCNS®, Hospital of the University of Pennsylvania, Philadelphia, PA

Category: Coordination of Care

The trajectory of treatment for a patient with an oncology diagnosis results in many transitions in care across the oncology continuum, including various acute and ambulatory care settings. Coordination of care across this continuum is key to optimizing the patient experience and ensuring patient safety. Nurses with expertise in these varying oncology settings must collaborate to be able to provide high-quality care that transcends the physical boundaries of location. The Oncology Nursing Leadership Team at an academic medical center recognized the need for increased collaboration to streamline care of a shared patient population among acute and ambulatory care settings across the oncology continuum. Discussions with front line clinical staff during nursing strategic imperative development

sessions also revealed the desire for increased partnerships outside of traditional collaboration. Unit council chairs of four inpatient oncology units and two ambulatory oncology settings, led by an oncology nurse manager, came together to establish a venue to share best practices and promote continuity across the oncology continuum. Standing monthly meetings have provided the opportunity and safe space for the oncology unit council chairs to develop leadership skills and work in partnership to optimize patient care, explore each other's current and best practices, and collaborate on projects across the service line. Increasing collaboration and partnership across the oncology continuum through service line nursing integration allows for streamlined care of patients and families throughout their cancer journey. Reviewing both patient and nurse satisfaction through the work of this team remains critical to enhance the excellent care provided by teams across the cancer service line. Varying examples inclusive of patient education materials, shadow experiences to improve understanding of roles within oncology nursing, coupled by community outreach collaboration, stand as most beneficial in the work of this team to improve the quality of the experience of patients and families within oncology. In addition, these examples highlight the teamwork across departments within the oncology service line, providing value to the patients, their families and the community. Scientific advancements resulting in complex patient care across the oncology continuum support the need for further partnerships within nursing. Leveraging the organization's nursing shared governance structure, unit council chairs within the oncology service line collaborate on shared goals and initiatives.

### 311

#### **ADOPTING THE ONCOLOGY NURSE NAVIGATION FRAMEWORK IN PEDIATRICS—LAYING THE FOUNDATION**

Wendy Mitsuyama, RN, MSN, MBA, NE-BC, Seattle Children's Hospital, Seattle, WA; Chelsea Olson, RN, BA, ABSN, CPHON®, Seattle Children's Hospital, Seattle, WA; Leah Kroon, MA, MN, RN, CPHON®, Seattle Children's Hospital, Seattle, WA; Sheryl Gudaitis, RN, BSN, CNML, Seattle Children's Hospital, Seattle, WA

Category: Oncology Nursing Practice

Seattle Children's Hospital Cancer and Blood Disorders Center (CBDC) serves 300 new cancer cases per year. In 2018, CBDC nursing leaders evaluated the role of the outpatient RN coordinator, and assessed that it was inconsistently defined across each disease-based team. Each team organically shaped the role of the RN

coordinator through delegation of tasks from other multidisciplinary team members. Work was batched for the nurse, and consisted of mostly administrative tasks. Due to significant role customization, it was difficult to cross-cover as well as define how many nurses were required to staff each team. The staffing model was not correlated with patient volume, making FTE requests problematic during budgeting. Job dissatisfaction and risk of turnover was high due to the lack of patient-facing work and overburden of non-nursing tasks. Nursing leaders in partnership with the RN coordinators sought to implement an evidenced-based framework to better define the nursing role. The oncology nurse navigation (ONN) framework was selected for implementation due to available competencies and implementation tools, and resonance with the identified support needed for patient care within CBDC. In June 2018, we developed a plan to implement the ONN model across all disease-based teams. A gap analysis was performed to assess the percent of time completing non-nursing tasks. Subsequently, resource investments were made by adding new FTE in the scheduling and administrative assistant teams. The RN coordinators subsequently developed a work transfer plan, delegating appropriate tasks to non-clinical personnel. Competencies related to the nurse navigator framework were identified and prioritized by the department Nurse Practice Specialist, in collaboration with the Nurse Manager and RN coordinator lead. All nurses attended a nurse navigation conference for general training, accompanied by a nurse leader within the department. Additional education was provided in these areas: psychosocial support, financial toxicity, patient education strategies, fertility preservation, privacy practices, and distress screening. A daily huddle was implemented to assess current staffing gaps and acuity for each disease based team as well as provide visibility for clinic staffing. Evaluation of the model is in progress and defining impacts to patient outcomes in data is a next step.

### 318

#### **IMMUNOTHERAPY TOXICITY EDUCATION— A HYBRID MODEL**

**Samantha Morrison-Ma, MSN, RN, ANP-C, WHNP-BC, Dana-Farber Cancer Institute, Boston, MA; Colleen McLaughlin, BBA, Dana-Farber Cancer Institute, Boston, MA; Caryn Caparrotta, BSN, RN, OCN®, Dana-Farber Cancer Institute, Boston, MA; Clare Sullivan, BSN, RN, MPH, CRRN, Dana-Farber Cancer Institute, Boston, MA; Ashleigh Eberly-Puleo, PA-C, Dana-Farber Cancer Institute, Boston, MA; Elizabeth**

**Buchbinder, MD, Dana-Farber Cancer Institute, Boston, MA**

#### **Category: Professional Development**

How do we deliver urgent, standardized education to hundreds of busy nurses across multiple practice locations? This is the challenge that ITox Foundations was created to address. Immunotherapy is increasingly prevalent in oncology. Its many toxicities are varied, and there can be presentation overlap between chemotherapy's manageable side effects and immunotherapy's life-threatening toxicities. The ITox Foundations hybrid course sought to increase familiarity of all Dana-Farber Cancer Institute (DFCI) outpatient nurses with immunotherapy's potential toxicities such that a patient could mention a worsening symptom to any DFCI nurse and receive the safest care. As with any cancer hospital, DFCI nurses may work in the outpatient clinic, phone triage, infusion, research, venous access, radiology, radiation oncology, and more. DFCI also has several satellite campuses, meaning nurses, in addition to working different hours, may work in different cities or even states. And, as with any large group of adult learners, the learning preferences of DFCI nurses vary. The ITox Foundations hybrid course was therefore designed with live and online options. A standardized slide deck was developed by an interdisciplinary team of experts. Live courses were in the form of lectures given by two expert speakers with question-and-answer opportunities. The online option was an hour-long presentation of the same content built in a Learning Management System (LMS) with interactive knowledge checks, voiceover, and animations to enhance engagement. Pre- and post-evaluations of both knowledge and confidence showed similar increases across live and LMS-based courses. With 93% of DFCI's outpatient nurses having completed the course (n = 504), this work supports the idea that live and online education can have equivalent outcomes. This work also provides a model for educating a large number of nurses across multiple locations, work schedules, and learning style preferences. The hybrid course model was effective for immunotherapy-related toxicities and could be a useful model for other widespread nursing education as oncology research yields more paradigm-changing new treatments.

### 326

#### **IMPROVED TURN AROUND TIME ON HIGH COST PRESCRIPTION DRUGS WITH THE USE OF DEDICATED PHARMACY TECHNICIANS**

**Dawn Neuhauser, MSN, RN, NEA-BC, OCN®, City of Hope Medical Center, Duarte, CA; Elizabeth**

Waite, BSN, RN, OCN®, City of Hope Medical Center, Duarte, CA

Category: Coordination of Care

Oral antineoplastic agents have increased in both cost and frequency of use. Often insurance companies require prior authorization for these medications, which can delay starting treatment. Even when approved by insurance these medications can place a high financial burden on the patient. Additionally, the increased paperwork associated with these medications can pull clinical staff away from direct patient care to compete the paperwork. The purpose of this project was to develop a centralized process for prior authorizations and financial assistance in order to reduce turnaround times and denials and to increase financial assistance resources. Performed a systematic evaluation of the structure and resources available to improve the prior authorization process. This included working with clinic staff to graph current workflow and establish best practices and opportunities for improvement. Explored models used in other leading oncology programs and current evidence and integrated this with available resources to create an ideal state for this process. This process led to the development of a centralized prior authorization department that pulled this work out of the clinic and to a dedicated staff. Evaluation: (a) Timely completion of prior authorizations as evidenced by decreased turnaround time from order to delivery of medication, (b) patient satisfaction related to Coordination of Care and Needs Met, (c) staff satisfaction related to Coordination of Care, working at top of license (specific metric to be determined as organization will be changing vendors for survey), and (d) reduction in patient calls related to obtaining medication to be measured by in-basket call type. Centralized process has created a standardized structure, identified inefficiencies within the system, improved turnaround times, decreased denials, increased patient access to financial resources, improving patient satisfaction while enabling clinical staff to maintain focus on patient care, improving staff and provider satisfaction. Utilizing pharmacy technicians in the prior authorization of oral antineoplastic agents came out of a systematic evaluation that empowered front line staff to identify best practices within our organization and opportunities to improve the process. After implementation of the pharmacy techs it was realized that the one of the primary barriers to completing the prior authorizations was the conflicting priorities and distractions that occur in the clinic.

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### **NURSING CONSIDERATION IN PATIENTS WITH ALK (ANAPLASTIC LYMPHOMA KINASE) POSITIVE NSCLC (NON-SMALL CELL LUNG CANCER) RECEIVING ALK INHIBITORS IN THE ERA OF MULTI-GENERATION ALK INHIBITING AGENTS: WHAT IS THE CURRENT UPDATE?**

Karen Oishi, APRN, AGPCNP, MDACC, Houston, TX

Category: Patient Education and Safety

ALK-positive NSCLC patients make up approximately five percent of NSCLC cases. This subgroup generally tends to be younger, never or light smokers with adenocarcinoma histology. There have been tremendous advances in the development of ALK inhibitors as currently there are several FDA approved agents. ALK inhibitors consist of three generations of agents, and achieved better results in prolonging the progression free survival and improving quality of life in comparison to chemotherapy. Adverse events of the ALK inhibitors occurred in almost all participants and third generation agent has unique adverse events of hypercholesterolemia, hypertriglyceridemia, edema, peripheral neuropathy, and central nervous system effects among the most frequently reported. Although most adverse events of ALK inhibitors is generally grades 1 to 2 and well-tolerated, serious adverse events (SAEs) such as lung toxicity of ALK inhibitors needs close attention. It is exciting for oncology nurses to have an access to multiple resources and channels to educate and advocate for our patients in the management of ALK positive NSCLC patients. It is imperative to continue to educate oncology nurses on any new novel agents that can enhance our understanding of the complex disease and better assist the patients receiving biologic treatment in the world of individualized and personalized medicine. The learner will be able to list and verbalize the FDA approved ALK inhibitors and state at least one common adverse event of each inhibitor a patient is receiving for the treatment of ALK positive NSCLC. I performed current literature search using online engine such as PubMed and MEDLINE on the topic of ALK inhibitors as a treatment for ALK positive NSCLC and the key words of oncology nurses. After the data analysis, it was clear that there was a limited educational information published for outpatient oncology nurses to educate themselves on the topic. The outpatient oncology nurses will seek additional literature in educating patients on multi-generation ALK inhibitors and common adverse events as well as adverse events management. Oncology nurses need to be cognizant of current ALK inhibitors to continue

to educate the ALK positive NSCLC patients. As an increased number of patients are receiving advanced therapy, oncology nurses need to engage in collaborative groups to improve management of adverse events.

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### **RETENTION OF NURSES THROUGH A NURSING MENTORSHIP PROGRAM**

**Colleen O'Leary, MSN, RN, AOCNS<sup>®</sup>, The Ohio State University CCC James Cancer Hospital, Columbus, OH; Miranda Osborne, MSN, RN-BC, CEN<sup>®</sup>, LMT, The Ohio State University CCC Arthur G. James Cancer Hospital and Richard J. Solove Research Institute, Springfield, OH**

*Category: Professional Development*

Mentoring programs provide new nurses with guidance and support as they transition into practice thus reducing their stress. Turnover rates within the first year range from 18%–69%. Nurses that stay in that position through their first 18 months of employment have increased long-term retention rates. Mentoring programs impact not only the mentee, but also the mentor. Mentors report reduced burnout and improved feelings of value after participation in the mentoring program and its processes. The purpose of this project was to institute a program geared at retention of new nurses to mitigate the cost of onboarding and to retain nurses longer. A program was instituted using the Academy of Medical Surgical Nurses (AMSN) mentorship program where the mentor has two to three years of nursing experience and is successful in developing caring relationships. The nurse manager assists in identifying appropriate mentors. Mentees attended a 4 hour class focused on relationship building. Mentors attended a 4-hour course teaching conflict management, crucial conversations, personality traits, & benefits of mentoring. Both complete a program plan and identify goals and areas of growth. Online learning modules, funds for offsite meetings, & quarterly forums are included. There are two units enrolled in the program with a total of 18 mentors and 18 mentees and a planned progressive roll out to other units. Data collected includes retention rate, transition to practice, job satisfaction, intent to stay, relationship with mentor and program satisfaction. Mentors measurements include relationship with mentee and program satisfaction. Of 36 participants, 89% of mentors were satisfied with the relationships with their mentees and over 92% of mentees are satisfied with the mentoring program overall. Retention rate for the 18 mentees is 100%. Mentoring plays a crucial role in assisting the nurse

transition to practice. Establishing professional relationships and building confidence in new nurses are essential components of a mentoring program. Focus on these two aspects can have a lasting impact on staff retention and satisfaction. To enhance program participation we instituted strategies such as an online activity tracker that gives program participants points that can be used towards incentives. Additionally, program participants have an online webpage that can be accessed anywhere to assist with monthly meetings and discussions.

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### **IMPACT OF TRANSITIONAL ONCOLOGY ACADEMY**

**Cathy Ollom, RN, MSN, AOCNS<sup>®</sup>, Miami Cancer Institute, Miami, FL; Noah Zanville, RN, PhD, Miami Cancer Institute, Miami, FL**

*Category: Professional Development*

The lack of experienced oncology nurses can have a strong impact ability of oncology centers to meet the needs of patients. This is particularly true in some parts of South Florida, where the shortage threaten to make it impossible of new outpatient oncology centers to deliver optimal care. The purpose was to develop a transitional residency program capable of taking experienced nurses without oncology training and provide them with the basic knowledge needed to safely care for cancer patients. Using sources such as COPI, FACT, and ONS, educational requirements for oncology nurse competency were identified. Using these standards as a starting point, a group of expert nurse educators surveyed current oncology training programs offered by our hospital and identified potential gaps. From these gaps, curriculum was developed, and formalized into a 12-week Transition Nurse Oncology Academy. Students were evaluated on knowledge of domains such as safe administration of chemotherapy, hazardous drug safety, symptom management, and oncologic emergencies at baseline and at completion. Since October 2018, a total of 27 RNs in three separate cohorts have successfully completed the 12-week program. Retention among RNs in the program was 100%. The average pre-test score among nurses was 42%. Following successful completion of the program, average scores rose to 98.2%. Results show that a structured, 12-week transitional oncology nurse academy developed by nursing experts using educational standards issued by benchmark society can successfully increase nursing knowledge of key domains in oncology successfully prepare nurses to transition to oncology practice. This program,

developed by nurses in coordination with established benchmarks provides a practical means of addressing an oncology nursing shortage.

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### **INSPIRING COLLABORATION AND CHANGE THROUGH AN ONCOLOGY NURSING JOURNAL CLUB**

**Margaret O'Malley, RN, OCN<sup>®</sup>, SCRN, Seattle Cancer Care Alliance, Seattle, WA; Dena Davis, RN, BMTCN<sup>®</sup>, OCN<sup>®</sup>, Seattle Cancer Care Alliance, Seattle, WA; Lenise Taylor, MN, RN, AOCNS<sup>®</sup>, BMTCN<sup>®</sup>, Seattle Cancer Care Alliance, Seattle, WA**

*Category: Professional Development*

Oncology care is changing at a rapid pace, with new treatment modalities requiring changes to current standards for patient care. Oncology nurses, to maintain best practice, must be knowledgeable of cutting-edge clinical advances. Nursing journal articles are a vital way to be apprised of the latest science and knowledge to drive evidence-based practice. At a large academic cancer center the resource of shared literature review was identified as lacking. The purpose of this project was to facilitate a staff forum for oncology journal literature review in the ambulatory clinic. Nurses supported by the Professional Development Council designed a Journal club forum. With the mentoring of a clinical nurse specialist, criteria were established for article selection and a schedule of discussion topics. Journal Club meetings were accredited for continuing Education (CE) and provision made for the option of remote attendance. The empiric success of the journal club can be measured by number of attendees and by noting how many of those attendees claimed CE credit. On average, there 5–6 attendees each to meeting with 3–4 of those attendees claiming CE credits. While only a small number of staff nurses attended each meeting, there was lively discussion inspired by the article topics. Nurses from different disease groups within the clinic shared their group's practice and contrasted the experiences with representatives from other clinical specialties. Attendees report the Journal Club discussion of literature has clarified their approach to evidence-based practices and increased their knowledge in the specific clinical research discussed. Journal Club attendance and post-survey participation have not been as robust as anticipated, and analysis of barriers is ongoing. Response from staff in the clinic has been positive although staff identified time away from patient care to attend as well as shortages of staff still are barriers to participation in the Journal Club. The goal for the

Nursing Journal Club is to inspire initiatives for practice improvement and continued excellent patient care and best practice in an outpatient oncology setting. The Journal Club Planning Team is exploring alternate meeting times and days, as well as other incentives and formats. Methods for sharing information from the Journal Club will be developed to foster dissemination of information to staff unable to attend.

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### **LEVERAGING TECHNOLOGY TO IMPROVE ACCESS TO PRE-CHEMOTHERAPY EDUCATION: CREATION OF AN ONLINE CLASS**

**Jane O'Reilly, MHA, BSN, RN, OCN<sup>®</sup>, UH–Seidman Cancer Center, Cleveland, OH; Regina Carlisle, MS, BSN, RN, OCN<sup>®</sup>, University Hospitals Seidman Cancer Center, Cleveland, OH**

*Category: Patient Education and Safety*

Uncertainty about what to expect or how to manage side effects can be a source of anxiety for first-time chemotherapy patients. Studies have shown that pre-chemotherapy education decreases patient anxiety and increases patient and staff satisfaction. However, it can be challenging to deliver this education in the clinic or infusion settings due to information overload, time constraints, lack of staffing and multiple patient demands. A common patient education approach offered by this multi-site cancer center was a nurse led, in-person group chemotherapy class. However, challenges with promotion and attendance led to modest class turnout. Infusion nurses noted that patients who did not attend class were often anxious and required more education time at their first treatment. Therefore, many patients did not receive the standard chemotherapy education. The purpose of this project was to improve access to pre-chemotherapy education by designing and implementing a convenient and cost-effective alternative to the standardized in-person chemotherapy class for patients and families. In 2019, the cancer center's Office of Patient and Public Education (OPPE) developed and implemented an online chemotherapy class video. Using the same content as the in-person class, a recorded, narrated version was made available via an online portal and registration code. Accessible from any device with intranet and sound, patients could view the class more than once and share it with others. Prior to viewing, limited demographic information was collected to track viewing statistics. The cancer center's OPPE also led efforts to advertise and promote the new online option to

patients and staff. Details will be shared about implementation costs, viewing statistics, and viewer survey results. The survey queries viewers' confidence in understanding key components of the class and overall satisfaction with its content. Providing standardized pre-chemotherapy teaching online is a creative way to offer education outside of a traditional classroom setting. By using this low-cost, easy to implement intervention, cancer centers can convey key information about chemotherapy and side effects to patients and families while reducing the nursing workload. This can help to enhance the nurse and patient experience. This project provides customized online pre-chemotherapy education that is specific to the cancer center and allows staff to track patients' views.

### 341 OUTPATIENT ONCOLOGY RN RESIDENCY

Lance Ortega, BSN, RN, OCN®, Texas Oncology, Keller, TX  
Category: Professional Development

Experienced oncology nurses are increasingly difficult to recruit and retain, while the cancer patient population is steadily increasing. In looking at the future of effective and safe oncology care, organization must commit to allocating time and resources to recruiting and molding new graduates who have a passion for oncology as an avenue to help supplement the nursing shortage that so many community-based practices are experiencing. Texas Oncology is piloting an RN Residency program targeted at recruiting new RN graduates to the outpatient oncology setting. The goal is to attract nurses at the beginning of their career to help shape their behaviors and practices to be inline with that of our organization. This also affords those new graduates a rare opportunity to secure a position within the oncology realm. The program is currently setup where the residency is a total of eight weeks. The first two weeks is spent in a classroom style setting where the residents are taught the basics of oncology by utilizing internal materials, ONS classes, subject matter experts from the different departments with our organization, and presentations by the residents themselves. After that is completed, then the residents are paired with their own dedicated preceptor for 6 weeks checking off on skills and learning regimens, protocols, and how to treat patients in the community-based setting. The goal and hope for this setup is to establish a solid and consistent on-boarding plan for the new nurses. This helps the likelihood of retention along with job satisfaction by the RN residents. When the first cohort was posted at the end of 2018, 69 applications were received within

3 days. From the 69 applicants, 20 individuals were interviewed, and 6 residents were chosen for the February 2019 cohort. The same recruitment process occurred in May 2019, 60 applications were received, 24 individuals were interviewed, and 4 residents were chosen. Additionally, the preceptors for this program, who are all existing employees, are also interviewed to ensure that the expectations of being assigned a RN resident are understood along with establishing that those individuals would be good mentors to new graduates. Currently, we are at a 90% retention rate for the RN residents, and their employment status will be check for two years to monitor continued retention.

### 344 ENVIRONMENTAL CONTRIBUTORS TO CANCER: AIR POLLUTION AND ITS ROLE IN CANCER MORTALITY AND CANCER-RELATED RESPIRATORY MORBIDITY

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Category: Oncology Nursing Practice

Air pollution is associated with cancer incidence and mortality in the general population, but the effect of air pollution on the morbidity and mortality of cancer patients and survivors is understudied. Fine particulate matter (PM<sub>2.5</sub>) is a widespread air pollutant with immunosuppressive and carcinogenic properties exerted through multiple mechanisms, including direct gene mutation, tumor suppressor inactivation, systemic inflammation, and estrogenic activity. Studies of lung and breast cancer patients provide evidence that increased PM<sub>2.5</sub> exposure after a cancer diagnosis significantly increases risk for cancer mortality. PM<sub>2.5</sub> exposure may contribute to cancer mortality by (1) speeding progression of the cancer itself or (2) lowering the immune system's ability to fight the disease. PM<sub>2.5</sub> is also associated with post-treatment respiratory morbidity among childhood cancer survivors. As certain chemotherapies used to treat childhood and adult cancers have acute and chronic pulmonary-toxic properties,



continued exposure to PM<sub>2.5</sub> may exacerbate previously compromised pulmonary tissue to increase risk for adverse respiratory health events. Among childhood cancer survivors treated with chemotherapy, our work shows that the PM<sub>2.5</sub>-associated odds of respiratory hospitalization are significantly higher than a cancer-free sample. In addition, PM<sub>2.5</sub> was associated with an increased risk for hospitalization due to respiratory infection, providing further evidence for PM<sub>2.5</sub>'s immunosuppressive effects among cancer survivors. The majority of respiratory health events among childhood cancer survivors occurred at PM<sub>2.5</sub> levels below the current acceptable 24-hour standard, implying that current PM<sub>2.5</sub> standards may not provide protection for populations with cancer. Oncology nurses educate cancer patients about risk factors that impact their health. Current guidelines used to educate patients largely focus on health behaviors (e.g., diet and tobacco avoidance), but no resources recognize that environmental pollutants may impact mortality and post-treatment morbidity. This presentation will provide nurses with information they can share with their patients about how air pollution can affect their health and ways to reduce personal exposure. Further, nurses are seen by the public as trusted sources of health information and patient advocates. This presentation is a call for nurses to advocate for policies reducing air pollution in their communities. Oncology nurses that are educated about the health effects of air pollution on cancer patients can be powerful partners in the effort to sustain current air pollution policies and pass new policies that protect public health.

### 346 STRATEGIES TO INCREASE HPV VACCINATION RATES AND DECREASE LONG TERM CANCER RISK

Kristin Ownby, PhD, RN, AOCN®, UT Health Cizik School of Nursing, Houston, TX; Lydia Madsen, PhD, RN, AOCNS®, Cizik School of Nursing, UTHealth, Houston, TX

Category: Patient Education and Safety

Human Papilloma Virus (HPV) is the most prevalent STD in the world with the US infection rate now at epidemic proportions. The CDC reports that 14 million people infected annually with HPV and 79 million currently carry the infection. Worldwide, HPV accounts for approximately 600,000 cases of cancer including cervical, oropharyngeal, vulvovaginal, and penile cancers. Despite recommendations from numerous health care organizations, demonstrated efficacy and safety of

the vaccine, HPV vaccination rates remain low especially among males. Educating oncology nurses in the prevention of HPV-associated cancers is an important role and requires understanding the barriers to HPV vaccination as well as interventions to enhance immunization rate. Research has shown that those healthcare providers who were knowledgeable about the connection of HPV to cancer, the importance of the HPV vaccination, and felt confidence to make recommendation to parents, had higher rates of patients who completed the series. Identified barriers to HPV immunization include lack of knowledge about the relationship between the virus and cancer, not seeing a direct benefit especially for males. Family-centered and community-centered education strategies to oncology nurses will provide necessary knowledge to increase immunization rates. Means of ensuring that culturally sensitive education to parents will be included. Healthy People 2020 established a goal of 80% of adolescent boys and girls completing the HPV series. Nurses can access their state's health department to determine whether the Healthy People goal is met. Completing the HPV vaccination series is the best means of preventing a HPV associated cancer in adulthood. RNs are in a pivotal role to educate patients about the link between HPV and certain cancers, risk factors and preventive measures, and the importance of early vaccination. Vaccination rates remain low despite data showing the significant reduction in HPV associated cancers. Oncology nurses need to advocate and educate for cancer prevention through initiation and completion of the HPV vaccine series.

### 347 DEFINING THE ROLE OF A NURSING JOURNAL PRINCIPAL MANAGING EDITOR

Celine Palmiter, BSN, RN, OCN®, UCSD Moores Cancer Center, La Jolla, CA

Category: Professional Development

In 2008, a large health system published its first health system-wide Nursing Journal to promote nursing excellence and innovation. The Nursing Journal themes change yearly, previous themes include: Shared Governance, Critical Care Nursing, Medical/Surgical Nursing. When the health system's Nursing Leadership endorsed Oncology Nursing as the theme of the 2018 Nursing Journal, the role of the Principal Managing Editor (PME) was still not defined. The oncology nurse named PME for the Oncology Nursing journal defined the PME role, which included operational oversight of the journal and project management. With the PME role defined, the PME could ensure that the journal's

content was comprehensive, accurate, well written and delivered on time. To define the role of the Nursing Journal PME, the PME established a team of clinical nurses with mentoring, editing and author recruitment competencies to develop the journal's clinical content, which included articles about staff and patient experiences and innovative quality improvement projects; a detailed production schedule; editor assignments to polish articles to final draft; frequent and targeted communication with editorial and production team members and the web designer to ensure that the journal's content was cohesive; final design and layout; final checks and approvals to publish the Journal on the health system's Nursing website. On May 4, 2018, the 17 page journal was electronically published on the health system's Nursing website. The Journal's outreach was to 2,000+ nursing professionals within the health system and 250+ oncology specialty nurses. As of September 17, 2019, the Nursing Journal website has recorded 425 clicks, which serves as a Nursing recruitment platform for prospective oncology nursing applicants. By defining the PME role, the PME of the Oncology Nursing Journal provided professional leadership for the Journal, which called on competencies in oncology nursing, project management and on-line publishing. Established by the PME for health system's Oncology Nursing Journal, the PME role is now a template for subsequent Nursing Journals. In addition, collaboration between the Oncology Nursing Journal's editorial team and authors has cultivated collegial relationships among oncology nurses as well as with the health system's broader, non-oncology nursing community.

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#### **EVIDENCE-BASED PROGRESSION FOR CLINICAL ADVANCEMENT PROGRAMS (CAP) FOR THE STAFF NURSE AND ADVANCED PRACTICE PROVIDER**

Lisa Parks, MS, APRN-CNP, ANP-BC, The Ohio State University James Cancer Hospital, Columbus, OH; Rebecca Grimmert, RN, OCN®, The Ohio State University Wexner Medical Center James Cancer Hospital, London, OH; Dorothy McDonald, MSN, RN, CNP, James Cancer Hospital and Solove Research Institute, Columbus, OH

Category: Professional Development

Since the 1970's in the United States, health care organizations have implemented clinical ladder programs to recognize and reward staff nurses. Yet recognition and reward for advanced practice providers (APPs) has been slow to develop. Promotion and retention are

key components of a professional career and the CAP provides a successful avenue. Clinical advancement programs allow nurses to develop leadership and mentoring skills through collegial interaction. The purpose of this project is to compare the benefits gained by staff nurses and APPs. Job satisfaction and retention are noted among those participating in a CAP. Continued revision and refinement of the CAP also increases participation in the program and job satisfaction. A clinical staff nurse IV, proficient and expert level APPs participated in the two CAPs available at an oncology institution. Each individual participated on the CAP committee by attending meetings and workgroups to revise guidelines for participation. These individuals were assigned mentees to guide through the application process and to be available for questions throughout the year. These individuals were assigned applicants, who were not their mentees, to score for success. Statistics from the clinical ladder staff nurse program and the APP CAP regarding applicant percentage of application and success were reviewed. Failure to successfully advance was analyzed. This information is utilized to revise the CAP guidebook and mentor training to improve the program. Our organization supports a shared governance program which supports clinical excellence and professional practice. MAGNET designated institutions provide a supportive organizational culture recognizing best practice. The value of financial reward associated with participation in the CAP and progression in the program is also recognized as best practice. Refinement of the CAP is critical for continued success of a CAP nurse engagement and participation in advancing their own professional practice. The literature has a gap related to professional development and CAP for APPs. There are few papers related to developing staff nurse and APP CAP, but no long term research cohort evaluations. Most papers are case reports. There is a need for scientific research in this area looking at staff retention, cost of turnover, job satisfaction, clinical competencies, and determination of nurse developmental progression.

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#### **NURSE-LED INITIATIVES TO REDUCE WORKPLACE VIOLENCE**

Melissa Pennington, BSN, RN-BC, Meritus Medical Center, Hagerstown, MD; Carol Grove, MSN, RN-NEA-BC, Meritus Medical Center, Hagerstown, MD; Melanie Houston, CNO, Meritus Medical Center, Hagerstown, MD

Category: Patient Education and Safety

Clinical nurses expressed concerns regarding workplace safety related to physical violence perpetrated

by patients and visitors. A review of violent incidents revealed an increasing trend of nurse injuries. To minimize the potential for violence nurses identified and implemented safety initiatives to enhance security and decrease violence. Workplace violence by patients and visitors toward healthcare staff has increased significantly in recent years. Approximately 20% of workplace violence incidents are reported by staff due to time constraints and fear of retribution. Increased violence has led to higher rates of turnover, burnout and an unhealthy work environment. Ultimately workplace violence impacts the quality of care by reducing patient satisfaction and increasing the patient's risk of harm related to workplace violence. An interprofessional approach was utilized to develop a comprehensive plan for reduction of workplace violence incidents across the organization. A new Workplace Violence Forum was established with representatives from administration, nursing, security, quality, patient advocacy, risk management, human resources, emergency management, behavioral and community health, corporate communications and clinical education. The group reviewed the literature regarding best practices for violence prevention and networked with other healthcare facilities to develop a multi-tiered plan for implementation. The workplace violence prevention plan was developed and implemented in March 2018 and included: 1) employee de-escalation 2) visitor badging and wand systems, 3) enhanced security and sheriff coverage 4) badge reader entry for the critical care unit, 5) redesigned ED behavioral health area, 6) revised workplace violence policies 7) updated patient rights and responsibilities and 8) community and staff education on workplace violence. Post-implementation of the violence prevention strategies, the rate of employee workplace violence incidents related to patients and visitors decreased to 0.64 per 1000 patient days/visits by June 2018 with continued sustained improvement. The team continues to implement additional measures to improve the safety of the workplace for staff and patients, and a larger "Hospitals Against Violence" Campaign is being planned for 2020. Increased violence has led to higher rates of turnover, burnout and an unhealthy work environment. Clinical nurses advocated and orchestrated the development and implementation of an organizational strategy that successfully reduced employee workplace violence incidents in healthcare and created a safer work environment for nurses.

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### FROM GROUND ZERO TO INSTITUTION WIDE PILOT: DEVELOPMENT OF AN ACUITY PATIENT CLASSIFICATION SYSTEM

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Category: Oncology Nursing Practice

In the rapidly changing world of health care delivery systems in the United States, there is an increasing need for outpatient ambulatory care. It is becoming readily apparent that the acuity and patient care needs of the outpatient clinics are increasing and nursing staff are struggling to keep up. Obtaining resources for quality care is a major responsibility of nurse leaders and requires accurate information in the political world of budgeting. We looked at enacting a patient classification system, beginning in our Ambulatory Care Infusion Areas to be used as a data collection tool which, in other institutions, has proven to effectively and objectively measure patient staffing needs, improve quality of care and nursing performance, not to mention, nurse satisfaction and retention, along with allocation of financial resources. In March 2018, an acuity task force was formed. We researched and developed a 5 scale acuity tool reflecting our work load measuring both direct and indirect patient care needs based on time and FTE. An initial pilot study was undertaken and the task force was expanded to infusion nurses representing each area who participated in the preliminary pilot, secondary pilot and data collection. Our 5 level scale incorporated aspects of both prototypical and care interactive tools. Guidelines for use were established and revised after first pilot for clarity and to make it easier for staff to use. Results of the preliminary pilot showed it did not correlate well with our infusion nursing work load and flow across the institution. Issues identified were the over measuring of nursing time frames with available resources. We subsequently used that data to redesign the tool and scale. A secondary pilot study was performed and revealed that the tool seemed to correlate much better with the workflow. Issues identified included educational needs and different interpretations by staff. We found that the tool correlated well both in the areas studied which we thought were overstaffed with FTE vs workload and those that were busiest we found were either adequately staffed or understaffed. We will now take

this data to expand our study to all infusion areas to ascertain the reliability and validity of this tool to potentially manage staffing in ambulatory care infusion throughout the entire institution.

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### **COMPASSION FATIGUE: THE IMPACT ON NURSING PRACTICE**

**Maggie Perrone, BSN, MA, CRNI, OCN<sup>®</sup>, Michigan Medicine, Ann Arbor, MI**

*Category: Psychosocial Dimensions of Care*

Compassion fatigue has been described as the “Cost of caring” and is a term identified by Figley and Joinson to describe situations where nurses had either turned off their own feelings or experienced helplessness and anger in response to the stress they feel watching patients go through illness and trauma. It is insidious, real, hard to put our fingers on and silently pervasive in our profession. Compassion is the foundation of our passion for our practice and for some, the reason we went into this profession in the first place. Without it, we are ineffective, harmful to our physical and psychological selves and our relationships of all kinds. Research has shown over and over again the negative impact compassion fatigue can have on nurses who are suffering from it. New research has begun to show its impact on the actual delivery of effective patient care and overall patient satisfaction scores. Many nurses know something is amiss, their work and their response to it has changed, becoming more difficult and less satisfying. Few know that what they are suffering from is real, treatable and that they are not alone. In this presentation I will discuss the emotional effect of being indirectly traumatized by helping those who experience trauma and stress. How compassion fatigue establishes itself in and impacts our nursing practice, options for treatment and tools to cope. I will discuss findings in many research studies that show how a well-managed and supportive work environment decreases compassion fatigue and burn out while maintaining levels of compassion satisfaction. I will discuss in detail strategies we can use to begin to take personal responsibility for maintaining our own psycho-social health and well-being in order to combat compassion fatigue. It is imperative we become more knowledgeable about compassion fatigue symptoms and intervention strategies, along with early recognition, awareness and preventative care. Each of us, on all levels of the nursing spectrum, staff nurses to top nursing leadership are not immune and each of us has a responsibility to do all we can to heal the healers who are suffering.

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### **IMPROVING OUTPATIENT ONCOLOGY NURSE PRECEPTOR SUPPORT**

**Brittni Prosdocimo, MSN, RN, BMTCN<sup>®</sup>, UPMC Hillman Cancer Center, Pittsburgh, PA**

*Category: Professional Development*

The University of Pittsburgh Medical Center (UPMC) Professional Education Department conducts a systemwide Precepting for Success Course offered to all nursing preceptors throughout UPMC hospitals. Educators from the UPMC Hillman Cancer Center (HCC) Education Department attended a health system courses and noted its value. A brief survey was sent to a few current HCC preceptors to better understand their knowledge of the course offering. Survey results revealed HCC preceptors did not have knowledge of the course and therefore were not regularly attending the offering. HCC preceptors who attended the course agreed that the precepting content was informative but found that the clinical information was not pertinent to the outpatient oncology setting. HCC developed a preceptor committee with the goal to better support nursing preceptors within all 27 HCC locations. The team determined HCC precepting could be improved by the following steps: adapting the current system Precepting for Success course to meet the educational needs of an outpatient oncology nursing preceptor, defining the expectation of the HCC preceptor for consistency across the UPMC HCC network, and offering the didactic HCC preceptor course bi-annually while using remote technologies to allow HCC network locations remote participation. The group was able to accomplish the initial goals in addition to successful development of added goals including: pre and post orientee surveys, obtaining baseline preparedness data for current HCC nursing preceptors, development of a preceptor toolkit, and development of HCC nursing preceptor team to increase networking and communication among preceptors. The toolkit has now been introduced to the HCC preceptor team with plans to implement team conference calls late fall 2019. The oncology Precepting for Success course will provide structured support to preceptors in 2020 and in addition, it may provide new insight into ways to offer continued support to HCC preceptors.

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### **PROMOTING EVIDENCE BASED PRACTICE THROUGH JOURNAL CLUBS**

**Theresa Purcell, BSN, RN, OCN<sup>®</sup>, The James Cancer Hospital and Solove Research Institute, Columbus, OH; Allison De Villiers, MSN, OCN<sup>®</sup>, APRN-CNS, ACNS-**

BC, The James Cancer Hospital and Solove Research Institute, Columbus, OH; Kelly Damman, RN, OCN®, The James Cancer Hospital and Solove Research Institute, Columbus, OH

Category: Oncology Nursing Practice

Historically we have used a variety of ways to educate nurses such as in-person lectures, online modules to hands-on simulation. As times change and nursing shortages and healthcare costs increase as well as overwhelming patient censuses, we need to find other ways to include nursing education and professional development. Cancer care is changing rapidly. It seems that every day there are new discoveries with medications, procedures, practices etc. Our very busy Gastrointestinal Oncology Clinic has approximately 400 patient visits per week. It was imperative that we implement a way to provide up-to-date evidence base practice and education to nursing and medical staff outside of the normal clinic hours. A monthly journal club was created that encourages critical thinking, great discussion with peers, and reviews and promotes evidence based practice. Each month, a different nurse presents a new topic of his/her choice that supports the needs of the clinic. The participants are expected to read the articles prior to attending and come prepared to discuss. The journal club takes place once per month, very early in the morning prior to the start of clinic. Some examples of journal club topics that have been presented are different gastrointestinal tumor types, pain and nausea management, infection prevention, and work-life balance. After each journal club the attendees fill out an evaluation form. There is also opportunity for the attendees to write in topics of interest for future journal clubs. The feedback thus far has been very encouraging as evidenced by thoughtful discussion and positive evaluations. The journal club has also helped to grow the number of clinical ladder nurses from none to six over the past two years. Journal clubs can provide a positive environment for nurses and other health-care-workers to discuss current practice issues as well promote new nursing education. The evidence shows that journal clubs are an effective teaching strategy, promotes lifelong learning, and increased reading skills. This is a great forum to discuss evidence-based-practices and protocols as well as promoting peer discussion and professional growth. Although there is some fear of critically appraising articles and reading lengthy research articles, with mentorship we have overcome this.

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### HOW CAN WE BEST EDUCATE CLINICAL PRACTICE ONCOLOGY NURSES WITH THE

### DELUGE OF INFORMATION ON TESTING, DISEASE SUBSETS AND NOVEL AGENTS INCREASING EACH YEAR?

Laura Reilly, RN, BSN, MBA, Meniscus Limited, Sea Girt, NJ; Lois Trench-Hines, MS, Meniscus Educational Institute, West Conshohocken, PA

Category: Oncology Nursing Practice

1993 was considered a banner year for new hematology/oncology (hem/onc) drugs with 30 novel agents approved by the FDA. Most recently in 2018, 59 novel products were approved in hem/onc. Currently, there are over 75,000 genetic tests available and 50 drugs that target specific genetic changes. Staying current on new therapies, tests and technologies is becoming burdensome. Many institutions do not allow for industry programs, yet they do not have the resources or time to educate the nursing staff on all the new tests and products approved for hem/onc. Our objective was to find out what clinical practice nurses were currently doing and what they were looking for to improve their access to information to better help patients. In an effort to understand what oncology nurses would like available to them to learn about new items, we surveyed 5000 oncology nurses. 52% said they only had 10 min. or less to educate themselves before engaging with a patient. 78% used their personal cell phone to access information. The top 3 categories of information they were seeking were on diseases & symptoms, new drugs, and side effect management. It is clear that the traditional educational programs need to be modified to address the needs of the nurses and the increasing amounts of data they need to know about diseases, testing, and new products. We are addressing this need by designing programs that can be viewed on cell phones and ipads and provide the information nurses need prior to engaging with patients. Programs are designed with one objective in short 5–10-minute segments to provide immediate and useful information with downloadable references and resources. Each segment ends with 3 questions to measure the effectiveness of the segment and to determine what else is needed. We listen to the needs of the nurses to design future programs. Nurses are the most trusted healthcare professionals. Their responsibilities include educating patients on their diseases, medications and side effect management. But staying abreast of all the new information on testing, genetic subsets of tumors and new drugs is becoming increasingly difficult. Our goal is making information more accessible for these first line educators. This study was funded by Meniscus Limited.

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### WELLNESS AT WORK: STRATEGIES TO ADDRESS UNATTENDED GRIEF IN ONCOLOGY NURSES

Anthony Ricardi, BSN, RN, CHPN, Virginia Mason Medical Center, Seattle, WA

Category: Professional Development

The need for grief support measures for oncology nurses is well documented. Research indicates that providing a variety of grief resolution strategies to nurses on a frequent basis improves retention, decreases compassion fatigue and burnout, and increases the general wellness of the nurse, the unit/department, and the patients. In our clinic, there are no current standard practices for grief support and this has impacted the department with many staff members expressing stress, overwhelm, and burnout, as well as a notable turnover rate, especially amongst RNs. The purpose of this project was to increase understanding of the impact of personal grief on oncology nurses, make connections between nurses' well-being and ability to provide quality care, and to create a multifaceted support system in the clinic for nurses to navigate grief and improve our emotional wellness. Methods: (a) Conducted literature review to determine what is known about the impact of grief, compassion fatigue, and the effects of caring for oncology patients. (b) Gathered information about staff support offered at other cancer centers and acute care medical centers where cancer specialty care is delivered. (c) Completed educational and professional development opportunities on grief, compassion fatigue, and wellness for healthcare providers. (d) Held regular team meetings to update staff on the project, seek feedback on activities utilized, and present options for different wellness activities. Several wellness interventions over the year include starting and maintaining Weekly Wellness Group, conducting the inaugural Weekend Wellness Retreat which we will offer annually, making soothing office environment changes, and implementing a more robust program for honoring patients that die and sending sympathy cards to their families. The activities and programming that have been instituted have been widely praised by the Hem-Onc nurses. The team's experiences over the past year will serve as a foundation for future efforts. In order to develop and strengthen our team's capacity to deliver the best care for patients, departmental support will be critical. By increasing the support for nurses to manage grief and loss related to work, we will encourage retention and longevity for these nurses.

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### ENVIRONMENTAL CONTRIBUTORS TO CANCER: PERSONAL CARE PRODUCTS

Linda Robertson, Dr PH, MSN, RN, University of Pittsburgh, Pittsburgh, PA; Ashley Babcock, MPH, BSN, RN, University of San Francisco, San Francisco, CA; Catherine Dodd, PhD, RN, FAAN, Healing the Health System, San Francisco, CA; Jennifer Wasco, DNP, RN, Chatham University, Pittsburgh, PA; Judy Ou, PhD, MPH, Huntsman Cancer Institute, University of Utah, Salt Lake City, UT

Category: Patient Education and Safety

Oncology nurses are aware that individuals are always seeking ways to either prevent cancer or minimize their risk of reoccurrence. There are many environmental exposures over which individuals have little or no control, such as air pollution and sometimes workplace exposures. However, there are many products (toothpaste, shampoo, body wash, talc, deodorant, sunscreen, make-up) which are used daily that also have the potential to affect one's health. Many of the products contain toxic chemicals such as 1,4 Dioxane, BHT and BHA, formaldehyde, fragrance, mineral oil, petroleum jelly, oxybenzone, parabens, phthalates, triclosan and retinol. Immunocompromised individuals, including oncology patients, may be at higher risk for developing adverse health outcomes, allergic reactions, and other chronic diseases. This presentation will focus on the state of the science regarding hazardous ingredients/chemicals in personal care products and lessons learned in educating patients and the public about these risks. Evidence-based resources, including those that direct consumers to safer alternatives, and educational "tips" ([www.bcpp.org/our-work/tips-for-prevention/personal-care-products/](http://www.bcpp.org/our-work/tips-for-prevention/personal-care-products/)) will be shared to help nurses increase their awareness of and actions to avoid potential hazardous ingredients/chemicals in personal care products. Through this enhanced awareness, nurses can become empowered to not only educate their patients and consumers, but to become advocates for safer products.

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### ADVANCING ONCOLOGY CARE: SUPPORTING ONCOLOGY NURSES' TRANSITION TO STEP DOWN LEVEL CARE

Nadeen Robinson, MSN, RN, OCN®, New York Presbyterian, New York, NY; Nicole Turkoglu, MSN, RN, OCN®, BMTCN®, New York Presbyterian, New York, NY; Lorie Ann Magno, MSN, RN, OCN®, New York Presbyterian,

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New York Presbyterian, New York, NY

Category: Symptom Management and Palliative Care

Medical oncology and bone marrow transplant patients require specialized oncology care due to: higher acuity requiring early interventions for positive outcomes; complexity of cancer, cancer treatments, and side effects; and specialized management of oncologic and transplant related emergencies. A medical oncology unit and bone marrow transplant (BMT) unit were equipped with step down capability and specialized bedside cardiac monitors to provide step down level care. RN staffing was increased over a three year period to accommodate ratio of 1:3 and 1:4. Nurse preparation included cardiac pharmacology class, high flow nasal cannula/continuous bipap review, cardiac monitor training, online telemetry learning module, and ACLS certification. Nurses expressed the need for more resources, training and knowledge on cardiac drips, telemetry monitoring, and guidelines for placing patients on cardiac hardwiring due to the higher acuity patients. Nurses on the two units teamed up to create a reference binder listing the various criteria for placing a patient on a step down bed, explanations of relevant protocols such as step down, cardiac drip, and bedside monitoring. Nurses were educated on the components of the binder and education was reinforced at each huddle and as needed. Staff expressed increased understanding and confidence with a hard copy resource readily available. Staff expressed feeling empowered when talking with providers and nursing administrators regarding step down protocols and procedures (i.e. criteria for step down beds, appropriate staffing requirements based on level of care required. In addition, a knowledge test was developed on the BMT unit to test the nurses knowledge on telemetry strips and cardiac drips: Pre Test: 72% (n=25 86% of eligible staff) and Post Test: 77% n=27 93% of eligible staff). Post implementation of the stepdown reference binder, nurses expressed the need for more frequent reinforcement of cardiac drips and telemetry strips. Nurses expressed with ongoing exposure and experience with caring for step down patients, they will feel more comfortable. The reference binder is helpful, however, would like more information and reinforcement on telemetry monitoring and cardiac drips. The advancing complexity of oncology care requires oncology nurses to be able to support patients at a higher level of care. Oncology and BMT nurses require more advanced skills to meet the needs of today's high acuity oncology patients.

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### THE IMPLEMENTATION OF IN PERSON THANK YOU CARDS TO INCREASE PATIENT SATISFACTION SCORES ON A MEDICAL ONCOLOGY UNIT

Robin Robinson-Coker, BSN, RN, OCN®, Sarah Cannon  
Cancer Institute at Johnston Willis, Chesterfield, VA

Category: Coordination of Care

Healthcare facilities always want to ensure that they are giving the best care possible to their patients. Patient experience scores are one of the ways this is measured for care evaluation. These scores allow facilities and the public to quantify and compare their care to others in their community. As a director on a medical oncology unit, I noted our comments were positive, however our scores did not seem to reflect the comments offered. When receiving responses from the patient experience survey, our unit was chronically receiving a low number of responses. The purpose of this is to demonstrate how the implementation of in-person thank you cards can be used to create a lasting impact and increase the patient connection. This was done to assist in increasing the amount of patients that filled out the survey. With increased results our scores would have the ability to increase and improve. Thank you cards were ordered to express gratitude to patients for allowing us to take care of them. Each nurse personally signed the cards, added a comment, and even drew a picture. After discharge instructions are given, 2-3 staff members including their primary nurse present the card to the patient. They express gratitude for the relationship that has been established during the patient stay, and wish them well for their stay at home, facility, etc. Thank you cards were implemented at the end of May 2019. The satisfaction scores which have resulted are as follows: May: 48%, June 63%, July 77%, and August 80%. Over a 4 month period, the scores increased by 40%. Patients have sent letters complimenting their care and how much they appreciated the card. They have discussed how they display their card at home. The implementation of thank you cards has allowed staff to increase their connection with their patients. This connection cements the patient experience and has assisted in exponentially increasing our patient experience scores. Patient satisfaction improves patient experience, staff satisfaction, and facility reputation. The addition of a personalized thank you card along with great patient care is innovative with its low cost simplicity. This has allowed us to achieve patient, staff, and facility satisfaction on a consistent basis.

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### LEARNING OUTCOMES ON NURSING CARE FOR PEDIATRIC PATIENTS WITH HIGH-RISK NEUROBLASTOMA

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Wendy Turell, DrPH, FACEHP, PlatformQ Health,  
Needham, MA; Jennifer Saggio, MSN, CRNP, CPON®,  
Children's Hospital of Philadelphia, Philadelphia, PA  
Category: Professional Development

Nursing care for patients and their families affected by pediatric neuroblastoma involves the development of treatment plans, extensive patient/family education, and the responsibility of providing support and facilitating access to services to address their emotional, social, and financial needs. Continuing professional development enables nurses to remain current with their training, particularly as data and practices evolve over time. The purpose of this study was to evaluate trends in learning outcomes as the result of serial education over a 3-year period focused on nursing care for patients with high-risk pediatric neuroblastoma. Three live, online 1-hour video-based education activities on pediatric neuroblastoma were produced 2016–2018, with each activity made available on-demand at OMedLive.com for 1 year from the live date. Common themes focused throughout the series were treatment regimens and their outcomes, management of adverse events, and effective support and counseling of pediatric patients and their parents/caregivers through the treatment course. Self-reported survey responses from learners were analyzed and included knowledge- and competence-based quantitative data (pre- and post-activity) as well as qualitative write-in entries of observed behaviors. Across the three activities, over 50% of learners (n=471 RNs/NPs) reported their participation had a positive impact on their clinical practice, and more than 60% reported a positive impact on patient experience. Self-reported measures also indicate increased confidence in caring for pediatric patients and families dealing with high-risk neuroblastoma, and increased ability to: provide supportive care, educate children and families on possible side effects of chemotherapy and immunotherapy, educate children and families on short and late effects of treatment, and implement an effective pain management program. Learner pre/post responses in the 2018 program indicate significant gains in knowledge and competency with regards to: immunotherapy side effects, post-consolidation treatment regimens, communication with families, and pain management strategies. Comparative analysis regarding the improvement in confidence, knowledge, and competence on nursing care in pediatric neuroblastoma

is ongoing. These and observed trends in learner outcomes will be presented at the conclusion of the third activity, which will remain on-demand through December 2019. To our knowledge, this is the first report to evaluate the impact of a series of continuing nursing education activities on high-risk pediatric neuroblastoma over a 3-year period.

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### USING A MONTHLY OPERATING REPORT (MOR) PRESENTATION TO DIRECT AND FOCUS ATTENTION IN A RADIATION ONCOLOGY DEPARTMENT

Karen Roesser, MSN, RN, AOCNS®, Sarah Cannon Cancer Institute at Johnston-Willis Hospital, Richmond, VA  
Category: Coordination of Care

The healthcare industry consists of providers who deliver patient care which may be curative, preventive, rehabilitative, or palliative care with the goal to promote health and relieve suffering. However, healthcare is also a business with the goal to ensure employees and patients are satisfied, occupancy rates are high, and business is growing. Thus, as managers and directors, we are often asked how we can grow business and keep staff and patients content. With the focus in nursing education programs on patient care, these issues may not be ones that we have learned previously. This program will describe the components of a monthly operating report (MOR) used to present to the administrative team as a method to show your assets, discuss your opportunities, and look to growth areas for concentration. Every two months, all hospital directors provide a presentation to all members of the administrative team. The components of this include: hierarchy of the department's members, open positions, turnover, missed lunches, employee engagement scores, patient experience scores, market share reports, department volumes (fractions, consults, diseases treated) SWOT analysis, operational updates, growth strategies, spotlight report, and community focus. Presenting at this forum allows for immediate team feedback from a group of high level administrators who know the organization well and have the ability to make immediate decisions. This has resulted in instantaneous approval of software related to improved quality in developing treatment plans. It has also given clarity to thought processes around decisions not to fund various equipment, software, or projects. Despite how well you think you understand current state, you are forced to really learn the status of your department when you have to present it to others. Obtaining data from multiple avenues (Press Ganey, retention rates, Insightive, and



employee engagement surveys) to include in an operating report puts key information together that can be presented succinctly to state your case. By the use of a MOR template, data can be easily updated as changes are made to this report. As nurses, we may struggle to show the whole picture of our department. Using this methodology is innovative as it allows us a template format of all key data elements.

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### **IN THE NEW ERA OF TECHNOLOGY: HOW DO WE IMPROVE COMMUNICATION STRATEGIES AMONGST NURSES AND MULTIDISCIPLINARY TEAMS?**

**Annette Roman, MSN, RN-BC, OCN<sup>®</sup>, Memorial Sloan Kettering Cancer Center, New York, NY; Annette Pineiro, MPH, RN-BC, OCN<sup>®</sup>, Memorial Sloan Kettering Cancer Center, New York, NY**

*Category: Professional Development*

Nurses today need to be both an effective leader and communicator that works to promote a cohesive, safe working environment among the interdisciplinary team. A formal literature review was done and proved a knowledge gap in communication skills and techniques exist within the nursing work force. Evidence has shown poor communication results in decreased patient satisfaction and increased sentinel events, while also reducing nursing satisfaction and affecting staff turnover rates. A program was created to augment communication skills using mindfulness, emotional intelligence, communication and listening techniques, and a review of conflict management styles. Participants were engaged in open discussions regarding communication at the unit level as well as within the multidisciplinary team. A “safe zone” agreement was verbally taken, and participants were aware discussions regarding conflict were encouraged to enhance learning of conflict resolution styles. A post survey was taken at three months with the initial results showing of the 65 participants, 70% continued to use emotional intelligence and 80% used mindfulness to improve their communication style. Of those surveyed, 50% believed listening skills and emotional intelligence were the most valuable lessons they learned. Of the nurses who have attended the “Improving Communication for Personal and Professional Growth” class many have promoted through the clinical ladder thereby gaining increased responsibility within the clinical units and the multidisciplinary team. Gaining knowledge about self-awareness and conflict resolution are the cornerstone to a transformational leadership style. A one-year survey was sent to 160 participants. Results

showed participants continued to use listening skills, 80%, followed by mindfulness at 70% and emotional intelligence at 65% to improve their communication. The participants rated conflict management, 74%, the most valuable skill learned during the course followed by listening skills at 58% and emotional intelligence at 56%. Survey results show nurses used conflict management practices and emotional intelligence to enhance positive patient outcomes and resolve conflicts by using the newly acquired communication strategies. Enhancing communication and conflict management styles increases nursing resilience in often challenging environments and situations, which in turn encourages further growth and sustainability of skills learned. As more staff learn these techniques, these skills promote a cohesive and collaborative work environment.

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### **STACKING THE PIPELINE: HOW AN ONCOLOGY INSTITUTION USES THEIR CLINICAL ASSISTANT PROGRAM AS A RECRUITMENT STRATEGY**

**Wendella Rose-Facey, MSN, RN-BC, CCRN, MSKCC, New York, NY**

*Category: Oncology Nursing Practice*

It has been reported that oncology nursing will be significantly impacted as the number of patients diagnosed with cancer increases with the aging population. This anticipated increase in cancer diagnoses is forecasted to lead to a dramatic increase for oncology nursing services. With the need to maintain the flow of oncology nurses, this cancer institution has embarked on an expanded Clinical Assistant Program initiative to introduce the specialty of oncology nursing for senior nursing students. Application for this 10-week program is open to students in and out of the tri-state areas and across state line. This program consists of one week of classroom instruction followed by clinical rotation with an assigned nurse. The students are engaged in multi-modal educational activities including case studies, communication skills and integration of technology in the provision of patient-centered care to complex oncology patients. The students follow their preceptors’ schedule for continuity and have the opportunity to participate in patient care activities on the unit. The Clinical Assistant Program introduces senior nursing students to oncology nursing and serves as a recruitment tool for hiring new graduate nurses into oncology nursing specialty. Since the inception of the program to include all divisions across the organization (inpatient and outpatient) in 2016, more than 50% of each cohort of nursing students who participated in the

Clinical Assistant Program were hired to the hospital. As these graduate nurses transitioned into practice, they often require less clinical orientation time than graduate nurses who did not participate in the program. Additionally, graduate nurses who are hired into the institution are often precepted by the nurse who they were with during the Clinical Assistant Program.

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### **VISUAL MANAGEMENT DRIVES CHANGE IN CLINIC WORKFLOW**

**Tresa Sadnick, RN, Vanderbilt University Medical Center, Nashville, TN**

*Category: Coordination of Care*

Prolonged wait times for patients in the continuum of care is problematic in the healthcare setting. Extended wait times negatively impact the patient experience and quality of care, therefore decreasing patient confidence in the care of the provider and perceived quality of care of the patient. Press Ganey Patient Satisfaction Survey results for our department pushed nurse leadership to promote change and advocate on behalf of our patients. Press Ganey surveys focused on trends to improve quality, safety and experience of patient care. A Visual Management (VM) board is a tool used to collect quantitative and qualitative data that is visible to the public to show processes and progress of problem solving. It displays analysis of specific problems, identifies contributing factors, provides solutions and feedback. The purpose of the (VM) board is to allow team members to collaborate, identify, problem solve, and find resolutions to identified root causes to a problem. It also empowers the team to preemptively address situations before problems arise. Huddles focused on team dynamics, safety issues, problems with machines, and communication of delays to patients. This (VM) process allowed team members to solve problems on their own rather than elevating it up to manpower to resolve. Pareto charts were used to tally individual occurrences related to the contributing factors that nurses observed. This information was transposed to graphs at the end of two weeks and displayed on the (VM) board for all to see. Data was collected over a period of two months. Executing daily huddles improved communication within the department and patients. Modifications were made from discovery of items that needed to be addressed. After reassessing every two weeks, subtle improvements began to occur with regard to prolonged wait times. Scheduling template errors lead to overbooking appointments and eliminating provider blocked times away from clinic. Router service was

restored to resolve paging failures and faulty routers. DOD coverage was modified to fix the imbalance of supply and demand of the provider. Collaboration between team members identified critical root causes of prolonged wait times. Data impacts change in processes and improves overall patient satisfaction. The (VM) board is vital tool in the success of this department.

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### **CAPS4CANCERS: BEYOND BEDSIDE CARE**

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*Category: Professional Development*

For busy staff nurses on a Hematology/Oncology unit at an academic medical center, finding additional ways to support cancer patients other than daily nursing care can be challenging. The idea to make fun, creative, retractable badge holders and donate the proceeds was an idea generated by a staff nurse who wanted to go the extra step in supporting her patients and improve staff satisfaction and resiliency. Medicine vial flip-off caps from the Hematology/Oncology unit were collected. The caps were used to create different designs for badge holders. Ideas for these unique badges included colorful flowers, animals, movie characters, princesses, etc. Badges would then be sold for \$10. Badges are sold physically on the unit and an online vendor for availability of off-shift staff and staff on other units. As the demand for badges grew, other units were asked to collect more caps. After deducting small production costs, the proceeds of these sales are being donated to different nonprofits every month that help patients with cancer. Previous nonprofits include Be The Match, St. Jude, Children's Cancer Research Fund, etc. In less than 4 months of operation, "Caps4Cancers" has sold over 300 badges, donated over \$2,200 to nonprofit cancer charities, and saved over 35 pounds of medicine vial caps from going into landfills. As many staff now wear their Caps4Cancers badges, patients often express their appreciation and love for the badges and the support they provide. Staff that purchased the badges were surveyed post purchase and over 80% of staff reported increased job satisfaction and increased sense of resiliency after implementation of the Caps4Cancer project. The demand and excitement for this project was so high on the oncology units that words spread to other units whose staff also started purchasing badges. Caps4Cancers is impactful for the oncology patient in a variety of ways. It reduces waste and repurposes would-be trash, raises essential funds for cancer nonprofits, improves

staff resilience and job satisfaction, and overall brings joy to patients and contributes to their appreciation of staff contribution to the oncology community. Recycling medicine vial flip off caps into badges is a fun project any oncology unit can implement that has a positive impact on staff and patients.

#### **418** **OUTPATIENT INFUSION CENTER EDUCATION WITH SIMULATION**

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**Category: Professional Development**

The Centers for Disease Control reported in 2013 that the cause of death for medical errors rates just behind cancer. Oncology nursing is a specialized area and generally not taught in most nursing schools. Nurses can enter oncology knowing very little about the practices, care, and treatments of this population. It is imperative to keep new nurses and experienced seasoned nurses, up to date on current practices. When there are multiple infusion centers incorporated under the same institutional name, the challenge of education to avoid medical error grows deeper. We have five oncology infusion centers located across central Florida and the projected volume is expected to be about 73,000 patients annually. To answer this challenge, we integrated the use of simulation into the infusion centers for non-threatening, hands on education. We put together scenarios that included mock codes, port access, and PICC dressing changes (for annual validation). Prior to simulation, this was done verbally with the mock codes and observations for the port/PICC during actual patient care. This resulted in inconsistencies with each nurse and it was challenging providing education and feedback while patients and families are present. Simulation allowed consistency, hands on training, and education for practice changes so standardization was complete with annual validation requirements. The outcomes are measured by nurse's feedback as there is no data to compare since this was new. Several weeks after the mock code, there was an actual code blue situation and staff reported feeling more in control and confident to perform in the emergent situation while providing the best care possible because of the simulation experience. "I like the hands on, one on one, with the Port/PICC" "We gripped a lot about getting on the floor to do the mock code, but we were thankful and knew what to do because of that" "Mock codes are a memory muscle exercise. It helps the RN to act in confident, effective and calm matter during the storm" "Because of the mock code we knew what to do" Because of the positive

experiences with simulation, this will be expanded in the next year to include infusion reactions and chemotherapy spills to assure staff is prepared and competent to handle these emergencies.

#### **419** **CARE COORDINATION ACROSS THE CANCER CONTINUUM: BREAKING DOWN THE BARRIERS**

**JoAnn Silcox, RN, MSN, CCCTM, Thomas Jefferson University Hospital, Philadelphia, PA; Anne Delengowski, RN, MSN, AOCN<sup>®</sup>, CCCTM, Thomas Jefferson University Hospital, Gloucester, NJ**

**Category: Coordination of Care**

Seamless transition of care for the cancer patient is critical to both clinical outcomes and patient safety and satisfaction. The coordination of this care necessitates proper communication from all areas that care is provided. Our goal was to identify gaps in the system that were seen as barriers to providing this coordination. Barriers included clear transition of care from inpatient to outpatient, readiness for treatment in the infusion areas and handoff between areas on critical issues related to patient care. The purpose of this project was to first identify the cause of these barriers, identify the obstacles to allow for the elimination of the barriers and clear coordination of care and communication to break down silos. The vice president and director of oncology nursing "walked the walk" to clearly understand the present state. In coordination with key stakeholders, the team initially identified processes that presented these obstacles which lead to decrease satisfaction with all team members. These two individuals embedded themselves within the areas to not only have a better understanding of issues but additionally to allow staff to voice their concerns in regards to the present state. Evaluation is ongoing and relates to readiness to treat and patient and staff satisfaction. During this process the teams had to acknowledge that certain historical ways of providing care needed to be revisited. Compromise became a clear factor and building trusting relationships was critical. This session will address the identified issues, strategies for building trusting relationships and critical changes that allowed for elimination of barriers to quality.

#### **420** **SAFE HANDLING AND ADMINISTRATION OF ORAL CHEMOTHERAPY**

**Rebecca Simmons, MSN, AGCNS-BC, RN, OCN<sup>®</sup>, Vidant Beaufort Hospital: Marion L. Shepard Cancer**

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Category: Coordination of Care

Cancer patients are often prescribed oral oncolytics as their primary form of oncology treatment. Our team decided to develop educational materials targeted to nursing rehabilitation facilities to help prevent future adverse events, increase adherence and improve safe handling and administration of oral chemotherapy. The Oncology Clinical Nurse Specialist and outpatient oncology nurses collaborated to review current and best practice for safe handling of oral chemotherapy. Our goal was to develop standardized education on safe handling and administration of oral chemotherapy for staff at local nursing rehabilitation facilities as well as an inpatient medical/surgical unit at our local hospital. A healthcare provider education tool was developed that included information regarding storage and safe handling, administration, handling of bodily fluids and waste, disposing of unused medications, common side effects and when to contact the primary oncologist. Pre and post-tests were administered during the education sessions with each of the nursing rehabilitation facilities as well as the inpatient medical/surgical unit. Twenty-nine nurses or medication technicians attended the education sessions. Prior to this intervention, 0/29 (0%) were able to describe their organization's policy on safe handling and administration of oral chemotherapy. Additionally 21/29 (72%) of nurses or medication technicians understood special precautions for linens soiled with bodily fluids or waste, with 27/29 (93%) demonstrating understanding post-intervention. The healthcare provider education tool was evaluated by ten staff members for clarity and understandability. Improved nursing and medication technician understanding of safe handling and administration of oral chemotherapy was noted. Future direction includes using evidence based practice guidelines to develop a standard for symptom management and provide additional education to nursing rehabilitation facilities as well as other departments throughout our healthcare system.

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### ENGAGING THE WORKFORCE THROUGH TRANSPARENT LEADERSHIP

Gayle Somerstein, MBA, MPH, RN, BSN, OCN®, Northwell Health Cancer Institute, Lake Success, NY

Category: Professional Development

Open communication or communication transparency has historically been viewed as an essential ingredient

in effective organizations. As a transparent leader of multiple clinical disciplines under my purview, it is of the utmost importance that I ensure that my direct reports are engaged and find joy in work. Additional research shows that higher levels of communication openness have been linked with better leader and follower relationships as well as higher follower motivation, job satisfaction, role clarity, more positive peer relationships and trust and organizational citizenship behaviors. We can infer from this experience that building trust through open and transparent communication can improve an employee's overall engagement, their satisfaction with their job, trust amongst peers and research has shown that an engaged workforce provides improve care to their patients. Downstream, we found that to be true and our Press Ganey patient satisfaction scores have shown increased patient satisfaction as well. Transparent communication is applicable in all work environments. Staff should have a basic underlying trust and confidence in their leader. Once there is trust in their leader, team members begin to express trust in themselves and their colleagues. They begin to work towards a common goal and vision, in this case to provide safe and compassionate care to our patients. This alignment leads to better outcomes, for the employee, the leader and the organization. Daily interaction with front line staff, through various techniques, over the period of 8-9 months showed staff that I was interested in them. Open communication techniques, transparency regarding how and why decisions were being made, with allowance for participation by key stakeholders all helped achieve this task. The lecture participant will leave with tangible strategies to employ in their own facilities to help increase authenticity in their leadership. They will be able to define Transparent Leadership and describe the characteristics that a transparent leader embodies and be able to implement strategies to improve their staffs' overall engagement. The learner will be able to define transparent leadership and describe the characteristics/traits of a transparent leader. The learner will be able to apply knowledge gained to become a more transparent leader.

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### AN EDUCATION PROGRAM TO IMPROVE INTER-DEPARTMENT NURSING COMMUNICATION AND PATIENT SAFETY FOR CLINICAL TRIAL PATIENTS: A NURSE MANAGER-LED QUALITY IMPROVEMENT PROJECT

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Category: Oncology Nursing Practice

Due to rapid increase in complex oncology trials coupled with clinical trial nurse turnover a need was identified for standardized protocol education for infusion nurses. The trifold goal of this quality improvement program is to improve collaboration and communication between infusion and clinical trial nurses, standardize clinical trial infusion education, and improve clinical trial patient safety. As clinical trial acuity and complexity evolve, precision medicine individualizes patient care, and patients live longer with more comorbidities the challenges for oncology nurses grow. Studies show the impact of workload stress on the oncology nurse; however, no studies investigate the communication needs between different nursing teams related to clinical trial patient care. The clinical trial nurse plays a critical role in patient safety and care delivery. In our National Cancer Institute designated cancer center where the infusion nurse team is not embedded within the clinical trials department a need exists for intentional collaboration and education. A hybrid educational model for the infusion nursing team will provide regular didactic education combined with supplemental online education. First, a survey of nursing staff will be conducted via REDCap (HIPAA secure database with survey capabilities) to assess perceived education and communication needs. Bimonthly education sessions with pre and post testing will track participation and knowledge augmentation. After six months a survey will be performed to evaluate nurse satisfaction. Finally, the hospital patient safety information program, utilized to report safety problems, will be reviewed by the collaborating nurse managers two months before and after the program. Findings provided after execution of the program. This quality improvement project directly aligns with the National Quality Strategy aims to support better patient health and care. The need for clear communication between clinical teams is well documented in oncology literature. Currently no literature exists illustrating communication and education needs of oncology infusion nurses caring for trial patients. This program

has the potential to improve inter-departmental nursing communication, collaboration and patient safety by reducing communication errors.

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## REDUCING CLINICAL TRIAL DEVIATIONS

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Category: Oncology Nursing Practice

Clinical trial protocol deviations can reduce the validity of study data and prove to be costly for institutions engaging in pharmaceutical clinical trials. Oncology nurses play an important role in preventing protocol deviations by ensuring that study procedures are adhered to and that documentation is both accurate and complete. By working closely with members of the facility research team at a large academic medical center, the infusion center nursing team reduced infusion related protocol deviations from an average of 9 per month to 4 per month over the course of 6 months. Representatives from the research pharmacy, infusion center nursing and the clinical trial team formed a workgroup to start reviewing clinical trial deviations and identify trends. This workgroup meets in person on a monthly basis and uses electronic communication in between meetings to keep members informed of updates and findings. As the deviations are identified the team works together to try to identify contributing factors and mitigation strategies. An action plan was developed to address the most common trends and is updated as problems are identified or resolved. Infusions finishing outside the window was identified as the most common deviation. Nursing staff identified that pump alarms due to occlusion or air-in-line stopped the infusion and that they were not always immediately able to respond. Staff nurses walking by did not know the patient was on trial so they did not recognize the urgency of resolving the alarm. A visual indicator was developed to notify staff walking in that the patient was on a trial and dry erase boards were installed so the nurse could easily be notified that the drug had stopped and had been restarted. Pharmacy was able to identify that the pump alarm settings were more stringent than the manufacturer recommendations. The alarm settings were adjusted per the manufacturer's guidelines and nursing reported a significant reduction in alarms. Institutions participating in research studies should track and report protocol deviations as a quality assurance measure. Representatives from multiple affected areas should be involved in reviewing these deviations on a regular basis to look for trends and

seek out solutions to identified problems. Oncology nurses should be actively involved in reviewing deviations and working with others to correct causative factors.

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### **REMOVING PAIN POINTS: A PROCESS IMPROVEMENT INITIATIVE FOR PAIN NURSING MODEL OF CARE AT AN OUTPATIENT ONCOLOGY CLINIC**

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Category: Coordination of Care

The Pain Service at an NCCN ambulatory oncology clinic provides complex pain management for approximately 200 patients. Most of these patients receive opioids for pain. The clinic is comprised of a multidisciplinary team including an attending physician, five clinic nurses, and one rotating pharmacist. Patients are seen in clinic at three- or six-month intervals. Clinic nurses support patients by: pain team clinic visits, telephone triage, and opioid refill requests including nursing assessments (approximately 200 per month) via telephone. Patients are expected to call the clinic for a refill 7–10 days prior to running out of medication. Time to return patient calls varies between 1–7 days. This varied response time leads to patient dissatisfaction and added stress for nurses. Late refill requests require nurses to quickly re-prioritize their day resulting in interrupted care for other patients. Variation in practice hindered efficiency, decreased optimal teamwork and resulted in inconsistent responsiveness to patients. A quality improvement effort was initiated to improve nursing workflows related to patient refill requests. A team including a Nurse Manager, program coordinator, Educator, Clinical Nurse Specialists, and pain nurses met to map out current state, identify strengths, waste, and envision future state workflows. Workflow mapping revealed variation amongst nurses in processing opioid refill requests and documentation. The volume of patient calls can be problematic for the nurses when trying to effectively and efficiently manage both symptom-based calls and refill requests. The team identified requiring patients to call for refill requests does not add value for patients and adds waste to the system. The interventions that will be implemented

are prescheduling patient assessments for weekly and bi-weekly refill requests and standardizing nursing documentation. Nurses are essential members of the Pain Clinic, responsible for coordinating pain plans for patients between in-person clinic visits. The innovation in this process improvement involved utilizing lean principles with clinic nursing staff. Current state mapping illustrated the complex work performed by pain nurses and helped the team to identify areas of both waste and value for patients. In addition to eliminating waste by pre-scheduling patient telephone assessments and nursing documentation, the team will continue the work of visioning and future state mapping.

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### **A COLLABORATIVE PROACTIVE APPROACH TO DIVERSION**

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Category: Professional Development

Healthcare professionals have one of the highest addiction rates in the United States. According to the American Nurses Association, it is estimated that one in ten nurses struggle with some type of drug or alcohol addiction during their career. In the oncology setting, diversion vulnerability exists due to the large number of medications administered to patients. Additionally, the oncology setting can be physically, mentally and emotionally exhausting for a nurse, which creates a textbook setting for nurses to become involved in diversion. Conditions such as high patient acuity, frequent deaths, and difficult clinical decisions all contribute to a stressful environment, which puts the nurse on edge. In order to support patients, staff, and the organization against diversion, we commenced multi-disciplinary efforts with the Diversion Specialist. The purpose was to implement comprehensive strategies to strengthen the institutions processes and practices around controlled substances. The approach was threefold. First, we sought to evaluate current practices in the oncology setting to mitigate diversion risks in the hospital. Examples identified by the Diversion Specialist were a high number of over-rides in the Omnicell system in the Acute Care Clinic and a large number of outdated narcotics in the medication carts in the inpatient areas. Secondly, the Diversion Specialist educated leaders and staff about diversion in order for them to support institutional changes around controlled

substances. Finally, plans were developed via a multidisciplinary approach to improve checks and balances for ordering, verifying, dispensing, administration and disposal of waste in the oncology areas. Evaluation of the program includes active surveillance through a variety of reports which monitors for elevated values and triggers a flag for leaders to investigate the cause. On the in-patient floors, paper records are maintained for required documentation and tracking of all medications located in the medications carts. Leaders and staff will continue to evaluate plans for diversion reduction and participate in ongoing education around regulations, compliance, and the nursing code of ethics as it relates to the obligation to speak up about diversion. Although addiction and diversion are two of the most daunting challenges faced in healthcare, nursing leaders, in collaboration with the Diversion Specialist, can take a proactive approach to eliminate diversion and provide resources to oncology nurses who are involved in diversion.

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### **MAKING THE ONBOARDING EXPERIENCE COUNT: A COLLABORATIVE APPROACH TO ONBOARDING IN AN OUTPATIENT ONCOLOGY SETTING**

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**Category: Professional Development**

Tennessee Oncology is a community-based oncology practice that includes 30 clinics and provides care to oncology and hematology patients across middle and east Tennessee. Previously, newly hired clinical staff received basic electronic medical record (EMR) and skills training but received inconsistent evaluation of their progress. Clinic management identified a dedicated preceptor for each new hire, but documentation, communication and follow-up varied, leading to dissatisfaction among preceptors and new hires. In 2018, the education team redesigned the onboarding program to improve the transition into the outpatient oncology setting. The education team identified the need to collaborate with other disciplines, to change modalities of EMR training and to provide standardization of the onboarding process across the organization. Upon hire, each clinical staff member is assigned an educator. A teleconference occurs with the orientee's educator, manager, regional operations manager and assistant director of nursing to discuss the orientation plan and to identify a designated preceptor. During the first week of orientation, the orientee attends human resources

training, completes hands-on EMR training and participates in a clinical skills practice day. During the second week, opportunities are provided for the orientee to tour their assigned clinic, shadow each clinic role, and complete an online cancer basics course to gain a better understanding of oncology concepts. After three weeks of orientation, registered nurses receive the third part of computer applications training and complete their chemotherapy certification. One day is designated to complete assigned education during this week. The educator meets with the orientee and preceptor at set intervals to evaluate progress and address challenges. Documentation is reviewed and scanned into an electronic shared folder that can be accessed by leadership and preceptors. Teleconferences to discuss progression follow the in-person meetings. Progression through the program is determined by competency achievements and knowledge level. After one year, new hires and preceptors expressed increased satisfaction and support during orientation. New hires also stated that they feel adequately prepared to care for oncology patients and have increased knowledge of diseases, treatments, and EMR requirements. Management reported increased communication and collaboration throughout orientation. The knowledge, training and support that new hires receive during orientation is integrated into everyday oncology nursing practice and contributes to the provision of safe patient care in an outpatient oncology setting.

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### **A NOVEL PROFESSIONAL GOVERNANCE COMMITTEE: MAKING EBP, QI AND RESEARCH APPROACHABLE**

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**Category: Professional Development**

A cross-oncology nursing evidence based practice (EBP), quality improvement, and research committee was formed to bridge the gap between nurses level of knowledge in the nursing sciences, and to increase participation in quality improvement, research, and EBP. The council includes oncology nursing staff on inpatient and outpatient units (medical oncology, surgical oncology, bone marrow transplant, research, and infusion). Nurses who participate represent their units in the shared governance structure, and disseminate information to their perspective units. The purpose was to increase nurses' level of knowledge and utilization of

nursing sciences in the oncology nursing practice setting. Meeting agenda items are geared toward needs on the unit, brought up by staff, and based on quality indicators. Agenda items include: oncology article journal club, presentations on relevant topics (EBP/QI and Research, previous research project participants, IRB requirements and developing an IRB protocol, and palliative care team), collaboration between units (Falls prevention, CLABSI, palliative care), and development of advance directive research project. Nurses (n=10) were asked to rank their knowledge level on a 5-point Likert scale with 1 being “no information” and 5 being “know very well.” Prior to attending nurses on average ranked their knowledge level of EBP, quality improvement, and research at 3= “know.” After attending, nurses on average ranked their knowledge level of EBP, quality improvement, and research at 4= “know well.” Nurses were asked to rank their confidence level in conducting their own EBP, quality improvement, or research project on a 5-point likert scale with 1 being “no confidence” and 5 being “high confidence.” After attending, nurses on average ranked their confidence in conducting their own EBP project and quality improvement on average at 4= “moderate confidence”, and conducting their own research project 3= “confident.” The council has a potential impact in improving oncology nursing care through nursing science. A goal of the council is to reach more nurses, support nurses conducting projects, and completing a council wide project across all of oncology nursing. By using a shared governance model, oncology nurses from multiple units are able to focus on areas that are significant to the oncology patient population. Together, they identify areas in need of improvement and share best practices across the continuum of oncology nursing care.

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### **TAR WARS—MAY TOBACCO USE PREVENTION AWARENESS BE WITH YOU; YOUTH TOBACCO USE PREVENTION INITIATIVE BARROW COUNTY, GEORGIA**

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*Category: Screening, Early Detection, and Genetic Risk*

According to the 2016 Northeast Georgia Medical Center Community Needs Assessment conducted by Truven Health Analytics, public health indicators demonstrated that lung cancer death rates, as well as lung cancer incidence rates, were significant health concerns in Barrow County, Georgia. Furthermore, the incidence and death rates of lung cancer were occurring at higher rates per 100,000 people than the

state and national benchmarks in Barrow County as compared to surrounding counties. For a new generation of youth in Barrow County, Georgia, raising awareness of novel nicotine products, unique marketing strategies of the tobacco industry, the long-term financial impact of nicotine addiction, and the powerful social influences of tobacco use is paramount to reducing the burden of tobacco-related diseases in the future. As a part of a community initiative led by oncology nurses, joined by community leaders, school nurses and counselors, the TAR WARS program was implemented in nine Barrow County, Georgia elementary schools during October of 2018. Based on the Centers for Disease Control’s guidelines for youth tobacco prevention programs, the TAR WARS curriculum focused on evidence-based interventions targeted to 4th and 5th grade students. Post program outcomes included a 100% participation rate of Barrow County elementary schools in, a 53% perceived high level of engagement of the students reported by the teachers, a 41% increase in the knowledge of the harm of vaping by the students, and a 21% overall learning gain by the students. In 2019, the program will be repeated and outcomes from 2018 and 2019 will be compared.

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### **EMPOWERING NURSES BY INTEGRATING EVIDENCE BASED PRACTICE REGARDING IMPLANTED VENOUS PORT MAINTENANCE**

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*Category: Oncology Nursing Practice*

After literature review on implanted venous port maintenance, recent evidence has demonstrated that maintenance using normal saline is as effective, safer, and more cost effective than flushing and locking with heparin. Heparin locking has been standard practice for implanted ports, but has limited research indicating superior effectiveness in preventing catheter occlusion than normal saline. Normal saline locking has the potential benefits of decreased cost, risk of HITT (heparin induced thrombocytopenia and thrombosis), and increased medication safety without significant impact upon catheter occlusion. At Vanderbilt University Medical Center (VUMC), a staff nurse, with leadership support, has developed an evidence-based research pilot program to be integrated in oncology ambulatory clinics. The purpose of this integration of evidence into practice project at VUMC is to validate the effectiveness of normal saline versus heparin locking with



institutional data in oncology practice settings. Based upon the data collection during the pilot, plans are to implement the current evidence as a standard of care throughout the institution. The process for integrating the evidence in the literature to practice began with a staff nurse empowered through the autonomous opportunity to advance in nursing, using VUMC's professional practice model. The staff nurse identified the opportunity to lead the project and present the data and proposal. The nurse enlisted support from an interdisciplinary medical committee, the Vascular Access Committee (VAC) and the leadership of areas where ports are accessed, flushed and locked. Plans for evaluative data collection and methodology, approval and use of tissue plasminogen activator (TPA) algorithm, and staff and patient educational plans were developed and discussed. Engagement of the quality consultant was pivotal to leadership support, pilot progress and evaluative data. Historical comparison of TPA use during the pilot, implanted port complications, and additional factors will be analyzed and reported. The evidence-based pilot of normal saline locking will be conducted over three months with evaluation throughout, and upon conclusion. After this data is collected, we hypothesize that there will be minimal, or insignificant increase in TPA use in implanted venous ports or thrombosis formation. This data will then be presented to VAC for further implementation across VUMC.

#### 472 ENGAGING LEADERSHIP IN REGULATORY AFFAIRS

**Tamara Walker, MSN, OU Medicine, Oklahoma City, OK**  
Category: Professional Development

Engaged hospital leadership related to regulatory compliance affair topics have better outcomes on surveys in a hospital setting than those that are not. This poster will show multiple tools to engage and collaborate with leadership clinical and non-clinical in a hospital setting related to regulatory items. This will help capture engagement and collaboration with all generations that are comprised of leadership. The effects of unit leadership using the Joint Commission Tracer app that can be downloaded on all mobile devices with auditing capability prior to scheduled surveys. This resource can be used with clinical and non-clinical questions applicable to the topic of the surveyor or the staff member answering the questions. Specific survey questions can be added and tied to a specific Joint Commission standard or CMS Regulation. We can customize questions related to the type of survey and engaged all staff to utilize this tool. By engaging the leadership team, staff

and utilization of the tracer app we had the best survey in the last 6 years. With the least amount of findings and action plans for follow up. With seeing the model of this work successfully with the Stroke Certification, we modeled this with the tri-annual Joint Commission survey. The collaboration with clinical and non-clinical leadership, use of the tracer app, communicating audit trends that was being downloaded in the app gave leaders real-time feedback of what was occurring on the units they led. The tracer app is just one of the many newest items to engage unit leadership over regulatory affair topics. We have a structured system to deploy of many resources from: hot topics, newsletters, quarterly bootcamps, and an open door. We perform environment of care rounds by a multi-disciplinary team to cover compliance topics. In conclusion, we have found in the institution engaging and collaborating with unit leadership and the regulatory affairs department survey outcomes are better. With utilization of new technology like the tracer app we have better results and outcomes on surveys than we have had in previous visits. We continue to engage the newest generation with technology, along with continuing of newsletters and meetings for Q&A. The more awareness, variety of tools, and engagement over regulatory affair topics the better the outcomes for hospitals.

#### 474 ENVIRONMENTAL CONTRIBUTORS TO CANCER: CHEMICAL EXPOSURES FROM CLIMATE CHANGE FUELED DISASTERS—WHAT NURSES NEED TO KNOW

**Jennifer J. Wasco, DNP, RN, Chatham University, Pittsburgh, PA; Catherine Dodd, PhD, RN, FAAN, Healing the Health System, San Francisco, CA; Linda Robertson, Dr PH, MSN, RN, University of Pittsburgh, Pittsburgh, PA; Judy Ou, PhD, MPH, Huntsman Cancer Institute, University of Utah, Salt Lake City, UT; Ashley Babcock, MPH, BSN, RN, University of San Francisco, San Francisco, CA**

Category: Oncology Nursing Practice

By the year 2100, the National Oceanic and Atmospheric Administration states approximately 20 million U.S. residents will be at risk for permanent flooding from extreme weather events, such as hurricanes, which are fueled by climate change. These intense flooding occurrences will impact the population's health because of the exposure to carcinogenic agents, such as benzene and butadiene that are released during the disruption of the community infrastructure during an extreme weather event. Additionally, in 2017, the National Interagency Fire Center stated, with increased

temperatures, due to climate change, the incidence of wildfires in the U.S. have increased dramatically since 1990. Populations in these specific geographic areas are being exposed to complex wood-smoke, which contains a mixture of toxic air pollutants, including carcinogens such as formaldehyde, fine particulate matter, polycyclic aromatic hydrocarbons, and benzene. When these fires hit residential areas, air pollutants can also include other carcinogens, such as dioxins. Nurses employed in areas where there is an increased incidence of extreme incidence climate change's impact on the environment need to be prepared to understand the long-term negative health consequences of climate change. In areas subject to wildfires, the increase in particulate matter in the smoke contains higher concentrations of cancer-causing agents. Conversely, in areas prone to flooding, the waters can overrun industrial areas where the use of toxic chemicals may be widespread. Thus, not only do the nurses have to work with the crisis impacts arising from such events, they have to understand the longer-term dangers arising from these extreme weather events. Nurses are trusted conveyers of healthcare information. This prevailing view of the profession creates opportunities for nurses to educate populations on these dangers. Through this presentation, nurses will be able to understand the links between climate change and subsequent risks associated with exposure to toxic chemicals from associated extreme weather events as well as preventative recommendations to avoid harmful exposures. The result of this call to action is that nurses who take leading roles in working with their local populations to mitigate the harmful effects of exposure to chemicals during and after climate change-driven extreme events.

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### **WHAT MATTERS MOST: EDUCATING NURSES TO CARE FOR THE AGING ONCOLOGY POPULATION**

Mary Kate Weber, BSN, RN, OCN®, The Hospital of the University of Pennsylvania, Philadelphia, PA; Rachel Mea, MSN, RN, OCN®, The Hospital of the University of Pennsylvania, Philadelphia, PA; Pamela Engle, MSN, RN, OCN®, The Hospital of the University of Pennsylvania, Philadelphia, PA; Kristen Maloney, MSN, RN, AOCNS®, The Hospital of the University of Pennsylvania, Philadelphia, PA

Category: Oncology Nursing Practice

Older adults comprise 50% of the nation's hospital market. More than half of all adults with cancer are age 65 or older. Unfortunately, our medical workforce is ill prepared to care for patients in the latter years of their

lives due to a lack of specialized knowledge in geriatric care. Of nearly 3 million registered nurses, less than 1% are specialized in gerontology. A team of three nurses from an oncology unit at an academic medical center were selected to attend the R25 Geriatric Oncology: Educating Nurses to Improve Quality Care Conference in California in July 2018. The R25 conference provides nurses with specialized Geriatric-Oncology education to enable teams to develop projects at their home institutions that aim to improve quality of care and patient outcomes for the Geriatric-Oncology population. Geriatric-Oncology educational huddle sheets and case studies were developed by the team. Topics focused on specifics in caring for the geriatric-oncology patient, including prevention of falls, effective communication, and methods to prevent loss of functional status. Roughly 178 nurses and clinical staff were educated via roving fairs on the four Oncology units at the academic medical center. All Oncology staff, over roughly 200 nurses and clinical staff, were provided the education via e-mail. Pre-education tests were completed by staff on all four oncology units and indicated a need for the education with an average test score of 70%. Testing post the education intervention displayed improvement in geriatric nursing care knowledge with an average score of 80%. Over 50% of the staff surveyed stated that the education was beneficial for their practice. The number one risk factor for developing cancer is age. As our population ages, the occurrence of geriatric-cancer diagnoses will rise. Often, Geriatric-Oncology patients are not receiving the specialized care they require and deserve. There is a great need for nurses trained in Geriatrics to understand the complexities of caring for older adults. Providing Geriatric specific education alone has proven to improve quality metrics for this vulnerable population. Providing nursing staff with geriatric-focused education is necessary to increase nursing knowledge regarding the specialized care of Geriatric-Oncology patients.

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### **SUCCESSFUL INTEGRATION OF NEW GRADUATE RNS INTO AN OUTPATIENT ONCOLOGY SETTING**

Jennifer Webster, MN, MPH, RN, AOCNS®, Georgia Cancer Specialists affiliated with Northside Hospital Cancer Institute, Atlanta, GA

Category: Professional Development

New RN Graduates are frequently encouraged to gain their initial clinical experience in a hospital inpatient environment. However, some new graduates wish to move directly into the outpatient oncology setting.

Concurrently, the need for oncology nurses in the outpatient setting is growing. Northside Hospital in Atlanta, GA, is a community-based hospital system with a large cancer program that has successfully offered an Inpatient Oncology Nurse Residency since 2013. Georgia Cancer Specialists (GCS) is a 26-clinic outpatient oncology practice affiliated with Northside. In 2015 GCS nursing leaders requested to participate in the Northside Residency program to address a shortage of nurses in their clinics. The purpose of this project was to maximize the opportunity for New Graduate professional success by building on the Inpatient Oncology Nurse Residency curriculum but with additional content addressing the unique components of ambulatory care nursing. Six New Graduate RNs entered the Outpatient Oncology Residency program in 2015. The Residents attended inpatient Oncology classes but also met for 8 weekly outpatient-focused sessions led by the GCS Oncology Clinical Specialist, with presentations by GCS Nursing Leaders, Clinicians and Pharmacists. Topics included early identification of patient problems, frequently occurring side effects and their management, common patient questions, practice with central lines and peripheral IVs, documentation requirements, quality improvement, community resources, and maintaining professional boundaries with patients, including the use of social media. Time was allotted to share experiences and problem-solve in a private, supportive environment. In the clinics, Nurse Residents paired with experienced RN preceptors to learn the multiple roles of the outpatient oncology nurse and shadowed other roles (pharmacist, front office, LPN, laboratory). In 2019 five of the initial group of Nurse Residents continue to work at GCS clinics; the sixth moved into oncology education within the Northside system. During 2016–2019 a further 15 New Graduate RNs have completed the program; 10 of those 15 are currently working at GCS. Evaluation of the program is ongoing with curriculum change based on input from stakeholders and participants; a recent example is the addition of a class on oral medication adherence. This project demonstrates a model for successful integration of the Nurse Resident into the outpatient oncology specialty. The program yields a high retention rate for the institution and professional growth and satisfaction for participants.

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### **MULTIPLE STRATEGIES ENHANCE EMPLOYEE RETENTION AND REDUCE NURSE TURNOVER**

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**BSN, RN, UT Southwestern Medical Center, Dallas, TX**

**Category: Professional Development**

An upsurge in high acuity patient volume forced the hiring of agency nurses, costing up to \$620,000 in one year. A unique spectrum of RN responsibilities, from sedation procedures to prescription refills complicated hard-wired onboarding and consistent training of nurses. Geographically isolated from the hospital, coupled with the complexity of care to adults, pediatrics, outpatients, and inpatients, placed the nurse at risk for errors and unrealistic expectations that damaged retention. A critical, multi-disciplinary approach was needed to address the ongoing nursing turnover in a radiation oncology clinic. In order to address the increasing patient volumes and critical care practices, the team sought to create long-term hiring and retention strategies. An interprofessional team approached collated data from one-on-one interviews with clinical nurses' feedback, nurse educators with expertise in training best practices, and a representative from human resources. This led to the creation of a new job description, tightening and strengthening the onboarding processes including proficient preceptors, redesigning orientation with more critical care competencies, and tailoring ongoing training with patient population-specific content. The job description included mandatory components of previous critical care experiences, ACLS and PALS certifications, and accurate portrayals of the diverse RN duties required, including procedures and rapid response calls. Straightforward depictions of the job responsibilities were detailed during phone interviews with potential new hires, decreasing incongruent expectations from the beginning. Agency costs in 2015–2016 were approximately \$620,000. In 2016, costs decreased by 47%, and then an additional 91% in 2017, with no agency use in 2018. Half year turnover rates peaked at 36.9% beginning of 2017 and then substantially decreased to 8.5% by end of 2018. New hires expressed positive feedback and increased satisfaction in onboarding and training experiences. Aligning role expectations, responsibilities, and onboarding stabilized nurse staffing, reduced costs, promoted a healthier workplace environment, and enhanced patient safety. Taking a deeper dive into the hiring and training processes enriched retention, leading to improved job satisfaction.

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### **NOT ALL PARP INHIBITORS (PARPI) ARE ALIKE. UTILIZING AN EDUCATIONAL TOOL**

## TO HELP NURSES DIFFERENTIATE AMONG FOUR FDA APPROVED PARP INHIBITORS

Theresa Zielinski, RN, MS, OCN<sup>®</sup>, Frontier Science Research, Amherst, NY; Edonn Ball, PhD, RN, CNE, SUNY Erie, Buffalo, NY; Marrienne Jerla, RN, BSN, Roswell Park Comprehensive Cancer Center, Buffalo, NY

Category: Oncology Nursing Practice

Poly (ADP-ribose) polymerase inhibitors (PARPi's) have gained increased clinical significance in treating different types of solid tumors. Understanding the different approaches in managing patients on PARPi's is a continuing educational challenge. Based on a preliminary survey of oncology nurses who care for patients with solid tumors it was determined that a knowledge deficit existed in distinguishing among four commercially available PARPi's. As a result, consideration of developing an educational tool evolved. The purpose of this project was to develop an educational tool that nurses could utilize while caring for patients who are receiving PARPi's. In developing this tool, the goal is to increase nursing knowledge thus optimizing the management of patients receiving PARPi's and to have a readily available guideline that nurses could reference to distinguish among the four PARPi's. A pilot study was developed to assess if an educational tool would be beneficial for nurses in narrowing knowledge deficits among the four different PARPi's. A convenience sample of ten nurses were selected to complete an online pre-test to assess baseline knowledge. Test questions included: indications, dosing guidelines, common adverse events, and dose reductions for each PARPi. Pre-test results were analyzed, and the same nurses were asked to review the educational tool. A post-test was then completed asking the same questions. Pre-test results showed where knowledge gaps existed. The post-test results helped to answer the question: Did this educational tool serve to decrease knowledge deficits found among this population of nurses? Post-test survey of nurses in this study determined that this tool would be useful to roll out in a clinical practice setting. Developing a tool differentiating among four different PARPi's helps to reduce knowledge deficits and serves as a useful guide that oncology nurses can utilize when caring for patients on PARPi's. Given the important role of oncology nurses on the front line of cancer care and patient engagement, it is a clinical priority for nurses to possess knowledge on PARPi's in order to safely administer these agents. The educational tool will assist nurses to mitigate and manage predictable and distinct adverse events to adequately care for patients on PARPi's.

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## ONCOLOGY TIERED ORIENTATION APPROACH

Cathy Zmolik, BSN, RN, OCN<sup>®</sup>, Baylor University Medical Center, Dallas, TX; Christina Barrow, BSN, RN, BMTCN<sup>®</sup>, Baylor University Medical Center, Dallas, TX

Category: Professional Development

Prior to implementing a tiered onboarding approach the inpatient oncology units would pair a newly hired nurses and graduate nurses with a clinical coach for a set period time. Experienced nurses were allowed up to 6 weeks and graduate nurses were allowed up to 12 weeks with a clinical coach. Orientees would complete tedious skills checklists leading to poor time management when given a high acuity assignment. Orientees struggled with simple tasks and time management. Due to obvious educational gaps, variances among clinical coaches, and very little structure clinical coaches were dissatisfied with the onboarding process. The purpose of this project was to evaluate the effectiveness of a tiered onboarding approach allowing more time for orientees to master skills and decrease the number of shifts needed to complete the onboarding process. Initially clinical coaches were surveyed to determine orientation needs for orientees when onboarding. The information was utilized to develop a tiered orientation approach with the idea of having the orientee master one tier before advancing to the next. Each tier had specific goals and tasks along with guidelines for clinical coaches to reference. Training sessions were offered to all clinical coaches to understand skill-stacking concepts and view the new tiered-orientation forms prior to implementation. In addition, all new graduates attended sessions to introduce them to the orientation process and expectations. Each week the educator rounded with clinical coaches and orientees to ensure the tools were utilized appropriately. The use of the tiered approach allowed orientees to master skills and advance through each tier on average of 4-5 shifts. The tiered orientation forms served as a communication tool allowing others to view barriers or challenges the orientee faced while completing the tiers. Although the tiered approach allowed orientees to advance depending on their performance it did not decrease the overall shifts allowed for orientation. Near the end of orientation all new graduates were required to attend mandatory training prior to the implementation of a new house-wide electronic health record system hindering their clinical experience(s) in tier 4. The tiered orientation approach provides structure for both,

clinical coaches and orientees, and can be utilized across many inpatient departments. Updates to current tools based on staff feedback will be included in next steps.

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## QUALITY IMPROVEMENT

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### 5 EDUCATIONAL NEEDS ASSESSMENT FOR NURSES CARING FOR PATIENTS THROUGHOUT HEMATOPOIETIC STEM CELL TRANSPLANT

Maria Alfonso, RN, BSN, Massachusetts General Hospital, Boston, MA; Colleen Walsh, RN, BSN, Massachusetts General Hospital, Boston, MA; Patricia Crispi, RN, MSN, Massachusetts General Hospital, Boston, MA; Ellen Fitzgerald, RN, MSN, Massachusetts General Hospital, Boston, MA

Category: Professional Development

Each year, a growing number of patients receive Hematopoietic Stem Cell Transplants (HSCT) for a variety of hematologic and oncologic conditions. The knowledge required to care for this highly specific patient population has become steadily more complex. It has become apparent that a stronger and more consistent knowledge base is needed to provide the highest quality nursing care, leading to the best patient outcomes. Accurate and evidence-based nursing knowledge is necessary to provide effective and safe care to this very specific and highly acute patient population. Building HSCT knowledge levels may benefit nurses routinely caring for HSCT patients as well as nurses who may be caring for pre/post HSCT patients in other areas; including critical care units, the emergency department, interventional areas, and outpatient practices. The purpose of this project is to address the need for improved, evidence-based, nursing knowledge required in the care of HSCT patients. Clinical nurses on a HSCT inpatient unit will be surveyed electronically to assess their knowledge related to the care of patients who are in the process of hematopoietic stem cell transplant. Focus groups will be conducted to further understand knowledge gaps and best learning strategies. Based on the input of staff, the project will provide educational guidelines as well as an evidence based resource tool kit that will be readily available to all clinical nursing staff caring for HSCT patients. This project would ultimately allow staff caring for transplant patients to have a more comprehensive understanding of the evidence behind

hematopoietic stem cell transplant as well as transform staff into more effective resources. The desired outcome of providing evidence-based standards of practice to nurses across the continuum, will lead to improved care and a more satisfying experience for patients, families, and nurses. Support for this project is being funded by the Reich Oncology Fellowship Grant Fund at Massachusetts General Hospital.

### 6 IMPROVING ONCOLOGY PATIENTS' UNDERSTANDING OF CARE BETWEEN OUTPATIENT VISITS

Carol Amodeo, MS, RN, Stony Brook Medicine Cancer Center, Stony Brook, NY; Regina DiBlasi, BSN, RN, OCN®, Stony Brook Medicine, Stony Brook, NY  
Category: Patient Education and Safety

Outpatient oncology care is complex; making patients more susceptible to overwhelming confusion and stress with managing all the different aspects of treatment. Effective communication between patients and clinicians can improve trust, prevent gaps in oncology patient's care and increase patient satisfaction. Patients often leave medical visits feeling overwhelmed, confused, and uncertain who to contact with questions; this increases the probability that their quality of care may be compromised. The literature regarding oncology patients' satisfaction highlights what aspects of care are important and what aspects cause them dissatisfaction with care. Patient satisfaction surveys have been increasingly recognized as an important measure of care quality. Our continued assessment of current quality improvement processes indicates that by improving communication between patients and care providers, and improving patient understanding of what is needed between visits, would result not only in improved patient care and adherence, but improved patient satisfaction. Review of outpatient oncology Press Ganey data has revealed opportunities for improvement in 'Explanations of problems and conditions'; 'Concern for questions/worries'; 'Information about medications'; and 'Instructions for follow-up care'. A cross-sectional survey was prepared to gain more in-depth information and greater understanding into areas of concern, using a low-performing population. The upper GI oncology service was selected and both medical and surgical oncology patients surveyed. Data collected over several weeks to achieve N=50 patients per service returning to the same site for multiple visits. This projects' aim is to evaluate patients' issues occurring once they are outpatients who must manage their

own care. The purpose is to assess patients' understanding of care needed between outpatient visits and identify opportunities to improve their care experience. Our goal is to demonstrate that improving communication and patient understanding of care needs ultimately leads to improved patient satisfaction with outpatient oncology care. In an effort to keep quality outcomes and patient satisfaction in the forefront of care delivery, this project will be an ongoing quality improvement process where we will continually assess, evaluate outcomes and reassess what is needed to implement improvement processes in an ever changing environment.

## 8 DEVELOPMENT AND IMPLEMENTATION OF A STANDARDIZED MEDICAL EMERGENCY RESPONSE TEAM IN THE AMBULATORY SETTING

**Venice Anthony, MSN, RN, CBCN<sup>®</sup>, Memorial Sloan Kettering Cancer Center, New York, NY; Andrea Smith, BSN, RN, CBCN<sup>®</sup>, Memorial Sloan Kettering Cancer Center, New York, NY; Roberta Baron, MSN, RN, CNS, AOCN<sup>®</sup>, Memorial Sloan Kettering Cancer Center, New York, NY**

*Category: Oncology Nursing Practice*

Response to medical emergencies in the ambulatory setting can be challenging due to multiple factors including infrequency of occurrence, uncertainty of who should respond, role of each responder and how to operate emergency equipment. This uncertainty can lead to organized chaos and potentially jeopardize patient outcomes. Based on current evidence and an internal review of current practices at other sites within our comprehensive cancer center, a collaborative nursing taskforce was created to develop strategies to improve our existing protocol for responding to medical emergencies in the ambulatory setting. The purpose of this project was to develop and implement a standardized medical emergency response team in the ambulatory setting. A training module was developed to address the knowledge deficit and increase nurses' comfort during a medical emergency. The two-hour session included a twenty-minute lecture that reviewed the current protocol for responding to medical emergencies, roles and responsibilities of responders and proposal for developing a standardized method for responding to medical emergencies. Learning methodologies included hands-on skills training followed by mock practice drills. Participants also completed a pre-post survey to ascertain their current knowledge, skills

and comfort in responding to a medical emergency and to determine if this improved after the training. Six sessions have been conducted and 41/68 (60%) nurses have attended. Post-survey results demonstrated increased comfort in responding to a medical emergency, operating equipment, providing hand off using SBAR (situation, background, assessment, recommendation) format and completing appropriate documentation. Since implementation, 11 medical emergencies have occurred. After each event, a debrief was conducted to assess what went well and identify areas for improvement. Our experience to date demonstrates that providing nurses with education and hands on training can improve nurses' knowledge, skills and comfort in responding to a medical emergency. Standardizing roles and responsibilities set expectations and alleviate confusion. A standardized medical response team in the ambulatory setting can foster teamwork, improve communication and overall efficiency and potentially improve patient outcomes. This presentation will provide attendees with the training curriculum, tools and resources that can be utilized in other ambulatory settings.

## 9 HPV PATIENT NAVIGATION PROCESS: COLLABORATION ON COMMUNITY EDUCATION

**Angela Adjetey Appiah, MSN, MPH, MA, RN, FAACM, Phelps Hospital Northwell Health, Sleep Hollow, NY; Mary Kovoor, MBA, MPH (S), Phelps Hospital Northwell Health, Sleep Hollow, NY**

*Category: Screening, Early Detection, and Genetic Risk*  
Phelps Hospital Northwell Health, Sleepy Hollow, NY is a Community Hospital with 238-bed, not-for-profit acute care hospital that provides medical and mental healthcare to the residents of Westchester. Over the last 10 yrs. the HPV vaccine has resulted in a 71% decrease in HPV infection among teenage girls. Despite this success, there are still significant barriers preventing vaccination impacting cancer prevention. The barriers include safety concerns, unwillingness to vaccinate boys, embarrassment because HPV is sexually transmitted, myths about side effects, and mindset of girls might be the only ones who need it. This project aims to address concerns with healthcare providers engagement in the community and increase patient navigation process for vaccination through open discussion in a Ground Rounds format. The purpose of this project was to improve HPV vaccination rates in our community through provider education and engagement, and to ensure physicians, RN, and

other healthcare inter-professionals fully understand their central role in improving vaccination rates. Ground Rounds using experts and peer panel to discuss HPV vaccination patient navigation, adherence and education in the community. Workgroup made up of community organization such as American Cancer Society, Cancer Committee, Primary physicians, RN, MPH student, Medical Directors, and clinics met regularly to plan and brainstorm on the event. Pre and Post survey during Ground Rounds and 3 months follow up survey to assess adherence. Likelihood to recommend vaccination: Before: 70% of healthcare inter-professionals/providers recommend the HPV vaccine often or always. After: 97% are likely or very likely to recommend the vaccine. Collaboration with key stakeholders made a difference in approach and decision making process. Refining and changing program objectives can occur in any of the stage of program planning. Flexibility is key. Multidisciplinary approach is essential in community outreach education programs. Engaging subject experts is paramount to success. Innovation: Ground Rounds, advisory group, community engagement, cancer organization involvement

## 10

### **COLLABORATIVE IMPACT BETWEEN AUDIOLOGY SERVICES AND CANCER INSTITUTE AND INFUSION CENTER TO PROMOTE DETECTION, EDUCATION, ASSESS AND MANAGE OTOTOXICITY IN OUR ONCOLOGY PATIENTS**

Angela Adjetey Appiah, MSN, MPH, MA, RN, FAACM, Phelps Hospital Northwell Health, Sleep Hollow, NY; Jessica LaCorte, Au.D., CCC-A, Phelps Hospital Northwell Health, Sleep Hollow, NY; Lauren Shine, OC, Phelps Hospital Northwell Health, Sleep Hollow, NY; Seraphina Nyamadi, BA, Phelps Hospital Northwell Health, Sleep Hollow, NY

**Category:** Coordination of Care

Patients at the Cancer Institute and Infusion Center are treated with lifesaving chemotherapies and radiation for their malignancies. Some medications are known to be ototoxic, or poisonous to the ear, and cause harm to the inner ear hair cells and/or vestibulocochlear nerve. This may create hearing loss, tinnitus, and/or dizziness/imbalance, which negatively impacts the patient's quality of life. The purpose of the quality improvement initiative was to assess a process by which patients are identified for toxicity screening and follow up process to make sure patients are monitored and followed up with properly. Utilized cancer

committee work group to tackle the brainstorming, approach and initiation of a PDSA process, chart review to determine patient receiving treatment that cause ototoxicity, establish a process for referral to audiology and follow up, establish stakeholders and identification process. Use of national benchmark and evidence-based practice. Criteria included patients of the Cancer Institute and Infusion Center who are taking known ototoxic medication, and those patients who report audiological side effects after taking the medication. Timeline of chart audits was from January 2018 – December 2018. After performing the chart review on cancer patients in 2018 who received cisplatin, carboplatin and/or head and neck radiation, none were referred to audiology or have a hearing test in their chart. Ten patients reported auditory symptoms including hearing loss, tinnitus, and/or vertigo and twelve patients had existing auditory symptoms. The chart audit indicated a need for a ototoxicity monitoring program to catch dysfunction in the auditory system before it progresses and to manage the hearing loss, tinnitus, and vertigo when it begins. If a change in hearing is measured, a change in medication and dosage can be considered by the oncologist. However, if that is not possible, the symptoms can be managed by the audiologist. The monitoring program is currently being rolled out. Innovation: Interprofessional collaboration, chart review pre-program development, engagement of the patient, caregivers, and staff advisory council.

## 11

### **IMPROVING PATIENT CARE, EXPERIENCE, AND STAFF SATISFACTION THROUGH A PATIENT, CAREGIVER, FAMILY AND STAFF COUNCIL—COLLABORATIVE PARTNERSHIP COUNCIL FOR CANCER INSTITUTE AND INFUSION CENTER**

Angela Adjetey Appiah, MSN, MPH, MA, RN, FAACM, Phelps Hospital Northwell Health, Phelps Hospital Northwell Health Cancer Institute at Phelps, Collaborative Partnership Council, Phelps Hospital Northwell Health, Sleep Hollow, NY

**Category:** Psychosocial Dimensions of Care

One of the aims of making a new cancer institute and infusion center achieve a high-quality patient-centered care is to engage the patients, caregivers, families, and the staff. This allows for collaborative impact on designing programs and care, that are flexible to accommodate unique needs while serving the needs of most of the population. Patient and Family Advisory Council (PFAC) was one way to capture this crucial

part of patient care. However, we combined (PFAC) and staff engagement to create a Collaborative Partnership Council (CPC) to offer a forum to obtain ideas, input, and insights to guide care, programs, improvements, and projects. The purpose of the collaboration was to improve patient care, experience, and staff satisfaction through a patient, caregiver, family and staff council—Collaborative Partnership Council for Cancer Institute and Infusion Center. Develop a collaborative council through partnering with patients, caregivers, families, and staff to improve care, create a culture grounded in patient- and family-centered principles, staff engagement, and improve the patient experience and staff satisfaction. Engage and promote stronger patient and staff voice that can lead to better care and improved clinical outcomes. Council members engagement, improvements made, and programs developed due to the collaboration. Transparency in the care process was welcomed and improved. Including the interprofessional team members such as nurse navigators, social work, dietitians, office coordinators, nurses, med/surg tech, office practice staff, NP, PA, patients, caregivers, and families provided an innovative approach to engagement. Collaboration between the identified partners promotes a Just Culture, an environment focused on strong partnerships, a culture of safety, and a commitment to transparency. Empower patients, their family, caregivers and staff members to be engaged in improving standards of health care, give patients, caregivers, families a forum to provide feedback about their experiences, and an opportunity to work together with staff members to address needs and develop initiatives. Innovation: Interprofessional collaboration, engagement of the patient, caregivers, and staff advisory council.

## 12 AFTER VISIT NURSING CALLBACK AFTER FIRST INFUSION DOSE OF NEW CHEMOTHERAPY/IMMUNOTHERAPY

Cynthia Arcieri, MS, APRN, OCN®, Dana Farber Cancer Institute, Londonderry, NH; Danielle Lynch, BSN, RN, Dana Farber Cancer Institute, Londonderry, NH

Category: Patient Education and Safety

Patients have unclear expectations about symptoms and symptom management. Patients have lack of understanding about treatment expectations and follow up self-care. Patients receiving treatment for malignant diagnosis will experience a greater level of support from their nursing team. Interventions: (a) Implement Standardized scheduling as follows: 24 hour call will be prebooked for all new chemo/

immuno treatments, (b) will work to adjust current scheduling tool, (c) will implement standard appointment type that can be utilized and tracked, (d) will implement smartphrase for documentation and future data review, and (e) education of nursing and provider team about the benefits of improving patient care. Evaluation: 1. Press Ganey Survey: Explain what to expect during chemotherapy 2. Press Ganey Survey: Explain how to manage chemotherapy side effects. The project saw an increase in both survey questions as well as an increase in overall satisfaction with the chemotherapy patient experience. The project identified medications and nausea/vomiting as patient education topics that could be improved during the initial chemotherapy teach.

## 15 DEVELOPMENT AND IMPLEMENTATION OF NURSE-SENSITIVE OUTCOME INDICATORS SET TO ASSESS THE VARIATION IN THE QUALITY OF CARE IN AMBULATORY CHEMOTHERAPY SERVICES IN THE KINGDOM OF SAUDI ARABIA: A FEASIBILITY STUDY

Dena Attallah, PhD Health Sciences (Oncology Nursing), Fakeeh College for Medical Sciences, Jeddah

Category: Oncology Nursing Practice

Nurse-sensitive outcome indicators (NSOIs) are considered an essential element of assessing the variation in the quality of nursing care. However, in ambulatory chemotherapy services (ACSs), there is a scarcity of quality of care measures, especially NSOIs of chemotherapy-related symptoms and experiences of supportive care. The principal aim of this study was to develop NSOIs, specific to chemotherapy-related symptoms and experiences of supportive care and associated tools set suitable for ACSs. Also, to investigate the feasibility and acceptability of undertaking a cross-sectional survey using NSOIs as a step toward assessing variation in the quality of care in ACSs in the Kingdom of Saudi Arabia (KSA). A feasibility study employed a descriptive, cross-sectional survey with two preparation stages. In Stage I, instrument items, including Patient Reported-Chemotherapy Indicators of Symptoms and Experience (PR-CISE) Arabic Version and associated tools, were developed. In Stage II, the feasibility of delivering the protocol was evaluated and the questionnaire pilot tested. The study aims were achieved, and the results were encouraging, demonstrating that recipients viewed PR-CISE and its associated tools as valuable, feasible and acceptable. The pilot testing of the recruitment, research tools,



and data collection process was useful in providing the groundwork. The cross-sectional survey confirmed that a large-scale survey of Nurse-sensitive Outcomes (NSOs) is feasible, acceptable and recommended, and can be largely implemented as planned. The Arabic PR-SICE questionnaire was acceptable and may be used to generate evidence about NSOs in ACSs and inform future policy and practice. Future application of these research instruments has the potential to contribute to improvements in the quality of patient care in ambulatory cancer services.

## 17

### **REDUCING MUCOSAL BARRIER INJURY CENTRAL LINE BLOODSTREAM INFECTIONS: QUALITY IMPROVEMENT PROJECT**

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*Category: Patient Education and Safety*

Infections are a leading cause of morbidity and mortality in adults with acute leukemia. Central line catheters increase this population's risk of serious infections. Despite several interventions at the unit and hospital level to decrease central line bloodstream infections (CLABSIs), the medical and oncology unit at a community hospital continued to see CLABSIs, specifically mucosal barrier injury (MBI) CLABSIs in hospitalized patients with acute leukemia undergoing treatment. A goal to reduce the rate of CLABSIs on the medical and oncology unit was set, and a quality improvement project with multidisciplinary stakeholders was initiated at the beginning of fiscal year 2019. The project was multifaceted and included staff education, root case analysis after each CLABSI, and a new patient education resource. Staff felt that patient education was an important new approach, as staff at times struggled to have patients understand the importance of oral cares and chlorhexidine gluconate (CHG) bathing to reduce infections, especially when patients did not feel well and experienced significant fatigue. The patient education sheet was designed by clinical registered nurses (RNs), RN case manager, and unit manager; it is given to hospitalized patients with acute leukemia undergoing induction or consolidation treatment. The sheet, entitled "Reach for the STARS", aimed to empower patients with daily

infection reduction strategies. The acronym STARS stands for Shower, Teeth, Activity, Rinse, and Speak up. The sheet provides simple directions to complete CHG showers, brush teeth, stay active, and complete oral saline rinses. Additionally, the education encouraged the patient to speak up if they had any infection prevention concerns. The sheet included a checklist for the patient to complete each day and a chart to document daily lab values. The lab chart helps keep the education front and center because most patients take great interest in monitoring their blood counts. The quality improvement project resulted in a decrease in CLABSI rate from 1.78 per 1000 central line days (fiscal year 2018) to 1.46 per 1000 central line days in fiscal year 2019 on the medical and oncology unit. Focused education to high risk patient groups may be an effective approach to supplement an inpatient oncology unit's CLABSI reduction program.

## 18

### **ADVOCATING FOR A SAFE DOCUMENTATION PRACTICE RELATED TO CHEMOTHERAPY ADMINISTRATION**

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*Category: Oncology Nursing Practice*

ONS recognizes the challenges with monitoring of cumulative dosing in patients receiving chemotherapy. Safety standards should be in place to prevent harm to patients by administering doses that are not monitored for cumulative dosing and maximum benefit. Review of the literature has found that errors related to chemotherapy administration are related to infusion rate errors, omission of hydration, and in proper plan for pre medications. In addition, patients are also at risk for harmful effects of therapy as a result of suboptimal monitoring of the cumulative dosing. Inpatient nurses document chemotherapy drug administration in the inpatient documentation platform. The concern was that the patients inpatient chemotherapy administration and documentation was not visible to the nurses, pharmacists or oncologists in the outpatient area. This could potentially result in an unsafe practice that can result in a patient receiving doses that are not calculated in the cumulative dose calculation per medication per patient. The purpose of this project was to ensure that all doses of chemotherapy are documented in one

documentation platform so that physicians, pharmacy and nursing have the ability to monitor for cumulative dosing of a given chemotherapy regimen. This was discussed at the Cancer Center Steering Committee. Discussion concluded that all chemotherapy certified nurses will need to have access to the outpatient documentation system, education and training regarding how to document that chemotherapy was administered on the inpatient side and also patient tolerance of the regimen. In addition the group discussed who should document the dose given. The group concluded that the nurse finishing the administration should document that the dose was given in the outpatient documentation system. Access to the outpatient documentation system and usernames were obtained. Education in the form of a health stream module, short-in-service including demonstration and return demonstration was provided. All staff have been trained and are documenting chemotherapy administration via the outpatient documentation platform. This enhances patient safety for the patient receiving chemotherapy and confidence for the physician, pharmacy and nurse reviewing, planning, ordering and administering chemotherapy regimens. Implications for other organizations with dual documentation systems are to replicate this work and identify the “source of truth” for documentation. This allows all providers and practitioners to reference one documentation platform to monitor cumulative dosing.

## 21

### FROM COMPLEXITY TO SIMPLICITY: ONCOLOGY NURSES IMPROVING THE FUNCTIONALITY OF AN EMR

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Category: Oncology Nursing Practice

Growing changes have occurred in healthcare and will continue to impact the future of healthcare based on Health Care Reform Act. Because technology is part of the reform, it is beneficial to consider suggested strategies for oncology nurses to harness technology within healthcare across the country. The time required for coordination of health care disproportionately exceeds the time available for nurses to meet the increasing complexity of the healthcare system. The majority of consumers of the U.S. healthcare system require extensive nursing navigation to receive appropriate care. With increasingly complex guidelines and policies that

dictate what information is required in documentation, the electronic medical record (EMR) is becoming more complicated than ever before. Increasing the efficiency of documentation in the EMR allows additional time be spent providing direct patient care. It is crucial that nurses are provided with opportunities to serve as full partners in health care redesign and improvement efforts. The nursing leadership utilized the various hospital forums to improve the functionality of our EMR. For example, multiple users share access to each patient’s record for documentation and informational purposes. We eliminated duplication documentation and improved interoperability which enabled the multidisciplinary team to have full access to all relevant details about a patient’s care facilitating improved clinical decision making. As a team, we increased provider access to patient-specific modules and templates such as medications, problems lists, and identified allergies as well as a reminder tab. Our EMR has expanded to integrate laboratory systems allowing provider access to patients’ stat test results immediately. Additionally, all nurses now have access to secure messaging within the EMR as well as a smartphone application of our EMR. Nurses and advance practice nurses at the point of care should be included in nursing informatics committees, workflow processes and development in order to shape the EMR. The EMR has the potential to greatly improve or detract from the nurse’s workflow. By including and encouraging nurses to be involved in optimization of the EMR it will allow nurses to work to the highest level of their abilities and make the complexity of their activities more visible. This can potentially improve the coordination and quality of patient care.

## 23

### PATIENT PERCEPTION OF NEW RADIATION THERAPY PATIENT GUIDE

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Category: Patient Education and Safety

Patient education is an important aspect of healthcare in all sites but particularly in radiation oncology where many patients have preconceived notions regarding radiation therapy, side effects, and safety. Radiation oncology is a rapidly evolving field in which technology can change quickly and surpass current patient

education materials. Northside Hospital Cancer Institute examined their radiation oncology patient education materials and found the materials to be outdated and repetitive. Northside Hospital Cancer Institute dedicated resources to creating a new patient guide for radiation therapy due to the identified need for updated materials. A committee consisting of oncology quality staff, oncology support staff, physicians, and radiation therapy clinical staff created a new guide. The reading level was maintained at a 5th–8th grade level and provided the staff with a standardized education tool. Subject matter experts reviewed the guide and then education was provided to the staff and physicians through presentations and online learning prior to implementing the new patient guide. A survey was then performed to assess the impact on improving patient understanding of radiation therapy and patient satisfaction through the use of the new Radiation Therapy Patient Guide. The study design was retrospective through survey administration to patients at the end of treatment which provided an opportunity for patients to utilize The Radiation Therapy Patient Guide prior to sharing feedback and satisfaction. The survey evaluated whether a patient received the book and found it helpful as well as asking patients to rate how helpful the book was and gave the patients an opportunity to give feedback recommending improvements. Data analysis included frequency and interval data with a summary of the initial impact on patient perception of the guide's usefulness. The study revealed that of those surveyed, 100% received the book and 98% found the book to be helpful. 83% of those surveyed had a positive satisfaction response. Results demonstrated the nursing staff's efforts to provide materials and educate the patients. This data was shared with nursing staff and served as a motivator for their involvement with improving patient education. The study provides real-time feedback reflecting the nursing role in patient education and meets the gap in oncology patient education.

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### **CANCER INFUSION TREATMENT: INCREASING UTILIZATION WHILE CHASING ZERO HARM**

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Category: Coordination of Care

Westwood Treatment is a 39-chair infusion department that specializes in bio, chemo, and immunotherapies for patients of the University of Kansas Cancer Center.

Increasing patient demand and complexity, as well as limitations on resources, has driven Cancer Center leadership to look at opportunities to better manage the needs of our customers and discern how to better accommodate the growing volume. iQueue for Infusion Centers is a software solution developed by LeanTaas, Inc. designed to fully optimize existing resources by leveraging machine learning and predictive analytics to ensure that each nurse and treatment chair is utilized at the maximum capacity while also keeping each patient and their safety at the forefront. LeanTaas provided optimized scheduling templates which ensured the appropriate number of patient starts, at any given time of day, with both maximum resource utilization and patient acuity dispersion. These optimized templates had to be built into the Cadence Scheduling module of O2. Template ownership was assigned to the treatment nursing and clinical staff (rather than scheduling staff) who oversaw both the original build and continued maintenance. During the period of study, daily average completed appointments increased by 16.3% (or roughly 16 patients per day), while daily average scheduled hours increased by 9.63% (or roughly 29 treatment hours). Same-day add-ons increased by 38.9% (or roughly 1.5 patients per day). Considerable attention has been paid to improving patient safety in the ambulatory cancer center. Implementing a new software has developed a much deeper understanding of patient acuity scores and safe staffing practices. The strategic and fundamental techniques implemented by iQueue provided infrastructure to improve access and scheduling while reducing the risk for patient harm. Changing scheduling practices is a dynamic shift in how schedulers book appointments. Additional education and reinforcement of the changes combined with understanding the “why” will be ongoing with patients and staff. Level loading, nurse allocation and decoupling visits put safety of the patients at the center of each interaction for all staff. The simple awareness of the need to change, along with the organizational commitment to chase zero patient harm, allows for additional review of data and opportunities to expand.

## 29

### **SHARED GOVERNANCE 2.0. “BY THE PEOPLE, FOR THE PEOPLE”**

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Category: Professional Development

Our staff engagement survey from 2018 revealed a downward trend in the area of employee decision

making. The results exposed that our staff wanted to have more involvement in quality improvement activities, more opportunity to influence nursing practice and be involved in decisions that affect their work. We also noted a decline in employees feeling that they had achieved a satisfactory work/life balance. Consequently, staff involvement in shared governance declined over the years and many initiatives were deferred to leadership. The purpose of this project was to provide staff an opportunity to be empowered in unit based decision making, build effective communication between the team and develop leadership skills necessary to engage staff in the decision making process. Our nursing staff work a 7 day-70 hour schedule for days, PMs and night shift. We assigned a shared governance council to each shift and week, breaking it down to quality, safety, research, practice, development and pain resource. The charge nurse for each shift assumed chair responsibility and already had prior leadership training for their role. They recruited a chair for each group and were able to onboard them into their new role and teach them the necessary leadership skills. This has allowed staff to be part of a committee during their work time and not have to come in on their off day to participate, which in turn created better work/life balance as well as increased decision-making. We have also included the C.N.A.s into shared governance by forming their own committee focused on practice that affects them. There is high level of engagement and desire to provide optimal care. We have seen an overall increase in engagement and autonomy in decision-making. Our councils have been involved in initiatives impacting retention, patient and staff education, quality improvement efforts, evidence-based practice, enhanced safety, and research. The re-invigoration of shared governance with the attention to work/life balance has increased staff engagement as well as sense of autonomy on the unit. Staff have a long list of accomplishments as well as opportunities for improvement. The council is creating new opportunities for leadership training and a sense of ownership. Patient are experiencing optimal care based on the changes that have been made.

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### **INTERDISCIPLINARY CARE FOR ONCOLOGICAL PATIENTS: PROPOSAL FOR QUALITY IMPROVEMENT**

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[Category: Coordination of Care](#)

Cancer has become a global public health problem and is considered one of the leading causes of mortality worldwide. Faced with the complex scenario of an increasingly frequent diagnosis, it is extremely important that health professionals in the interdisciplinary team seek to systematize methods and approaches that recognize the real needs of cancer patients and their families. The actions developed by the interdisciplinary team ensure and enable the exchange of knowledge and methodologies that are necessary in this complex and challenging environment. The purpose of this project was to demonstrate the effectiveness of interdisciplinary meetings for conduct decisions and protocol development for cancer patients in a chemotherapy outpatient clinic. An interdisciplinary antineoplastic treatment team was formed at a private chemotherapy outpatient clinic in Campinas, São Paulo. Eighteen interdisciplinary meetings were held from January to November 2018, with an average of 21 days apart, to discuss clinical cases and proposals for improving care; representatives of the nursing, medical, psychology, nutritionist, physical education, administrative and pharmacy teams were present. During the meetings, 27 proposals for interventions, protocols and events were made, of which 16 were implemented and, by February 2019, 6 were ongoing and 5 were not initiated. Of the proposals made, 4 were direct interventions with specific patients; 7 new flows and protocols developed, 2 care flow changes, 2 team development events, and 1 patient event. Interdisciplinarity was essential to attend high complexity care in oncology and quality management care. The meetings provided greater interaction between teams, patients, and families, who directly benefited from the proposed interventions and flow reviews, and optimized efforts to design continuous improvement projects.

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### **YOGA POSES FOR STRESS REDUCTION**

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**Category: Oncology Nursing Practice**

Self-care for the nurse is usually a combination of multifaceted behaviors that build resilience, diminish burnout, and promote health and safety of the nurse, similar to patient goals. Many stress-reducing activities suggested by professionals (exercise, listening to music, hobbies, etc.) must be performed off site during non-working hours. Occasionally there are the chance intervals during work time where a few moments spent wisely can produce a reduction of stress with lasting benefits. Alexander, Rollings, Walker, Wong, and Penning (2015) noted links between stress and burnout, evidenced by nurse reports of anxiety and job dissatisfaction, which can lead to patient dissatisfaction and poor patient outcomes. Stress reduction while at work can be accomplished through the mind-body practice of yoga. The project began with a three question, Likert scale survey to assess feelings of stress during the work day. The intervention (selected yoga poses) was then introduced to staff; participants were asked to utilize the intervention for a period of two weeks. The simple yoga poses selected were able to be practiced unobtrusively while standing or seated in a chair, aiming to provide relief of stress and tension. The selected poses ([www.Top10HomeRemedies.com](http://www.Top10HomeRemedies.com)) involved stretching arms, hands, or fingers, as well as large muscle groups in the lower extremities, followed by relaxation of the same muscles for seconds to minutes. The intervention was aimed at providing a reduction of feelings of stress and tension during working hours. At the conclusion of the intervention days, participants were again surveyed using a similar Likert scale survey to assess feelings of stress and tension during the work day. Staff, including participants and non-participants, continue conversations about the intervention and post challenges to each other for longest or deepest sustained pose. Anecdotal responses indicate staff felt a reduction of stress, even if momentary, as a result of the intervention.

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### **RETHINKING SAFETY ROUNDS BY DECENTRALIZATION, STRUCTURE AND FEEDBACK**

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**Category: Patient Education and Safety**

In caring for oncology patients, safety is a priority and requires a multidisciplinary team approach to address safety concerns. Previously at our academic medical center, the Quality & Safety Department leadership team hosted Safety Round sessions with the Cancer Center's leadership and front-line staff for one hour monthly sessions. Primary participants included Senior Leaders, Nursing Leaders, and bedside nursing staff. The format involved first, a round table leadership discussion followed by rounding on an oncology unit. During unit rounding, participants were often nursing staff, however it was identified that it was important to include all key-stakeholders in the Safety Round process. The purpose of this project is to expand participation during Cancer Center Safety Rounds to include physicians, pharmacists, physical therapists, social workers, and support staff in addition to the nursing staff. The goal is to learn of safety concerns from all key-stakeholders to enhance opportunities for improving patient safety. This will optimize the level of engagement and enhance the Safety Round discussion to increase awareness and knowledge regarding patient safety issues and concerns. The nurse coordinator facilitated the change to expand the multidisciplinary safety team to include all stakeholders. Safety Rounds started on the unit with the frontline staff, not in a meeting room. A Safety Round schedule was developed to allow providers and frontline staff to know the date their unit's Safety Round visit. In addition, a tracking tool was developed and provided to the rounding unit prior to the session. The tracking tool captures oncology patient safety concerns identified by frontline staff and is also designed to develop action plans, interventions, and close communication gaps. The information gathered from the tracking tool identified an increased level of participation among several members of the multidisciplinary team. There has been an increased number of safety concerns brought forward by participants and increased enthusiasm in creating solutions as a team. The number of action plans has significantly increased, which correlates with the increased staff engagement during rounding. In oncology, a structured, decentralized, safety rounding practice led by nursing improves patient safety by including a multidisciplinary team approach. Engaging frontline staff and expanding the multidisciplinary team increases teamwork and the number of solutions to address patient safety concerns.

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### **OCM: DEVELOPING A NAVIGATION SYSTEM AND OPENING NEW AREAS FOR GROWING QUALITY**

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*Category: Coordination of Care*

The Oncology Care Model was adopted by Alliance Cancer Specialists in 2016. At that time there was one individual coordinating the program from a central office. The nursing and medical technology staff employed at the various sites administered the care plans, did depression screens and performed pain assessments, but there was no coordinated effort, and the patients were not being engaged in the model, nor did they have an association with a particular caregiver other than their Oncologist. In 2019 the leadership team at Alliance decided that the program needed to be coordinated and developed further to provide the OCM population with increased quality care and contacts within the practice to help meet their needs. Initially the program was piloted at one of the sites (two offices). At the outset a grid was developed identifying the OCM patients, the treating physician, diagnosis, treatment and dates of care plan and depression screening. We also began looking at hospital admissions and follow ups in the office. Once this was in place three additional individuals were designated to coordinate the program at the other sites. The lead site coordinator assisted in setting the programs at the other sites. Our initial growth goal was to obtain copies of 5 Wishes, in order to provide patients with information and guidance regarding Advanced Directives. We also noted that some patients were admitted to the hospital frequently, leading to the development of a list of high risk patients for more intensive follow up by the OCM Team. The OCM team is receiving an increased number of phone calls requesting information and assistance along with more frequent face to face in office contacts, with the patients being serviced within the OCM. Our Care Plan and Depression Screening interventions have occurred in a more timely fashion, indicated improved compliance with this portion of the program. We are attempting to re-institute patient surveys within the practice to evaluate and quantify patient perception of the effectiveness of our current initiatives. We also will also be requesting feedback regarding additional services that the patients view as beneficial. We are looking at the adaptation/piloting/adoption of a high

risk screening tool for use in identification and follow up of patients who might benefit from more intensive intervention.

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### **A STAFFING MODEL BASED ON ACUITY, IN AN ONCOLOGY INFUSION CENTER**

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*Category: Oncology Nursing Practice*

Oncology infusion nurses' workloads are increasing as the number of patients and treatment complexities continue to rise. There is a push to provide more treatments in the outpatient setting, which is placing a greater demand on infusion nurses to provide safe, competent care to a larger population. Additionally, the implementation of clinical trials, amidst typical infusion center operations, has led to an increase in nursing time and resources required. This unpredictable clinical environment has made it challenging to determine nursing care required, and has additionally hindered the ability to allocate equitable nurse assignments. The increase in number of patients seen, coupled with the rise in treatment acuity has led to an overall decrease in nurse satisfaction. The need for an improved staffing model to adjust for these changes has supported our development of this acuity tool. The development of this tool was aimed to provide safe, high quality care and improve nursing satisfaction by scheduling assignments based on patient acuity versus typical scheduling methods. The tool was intended to generate a score for each patient that was reflective of their acuity based on patient care requirements, regimen intensity, and nursing time required to administer treatment. Using an evidence based approach, the first phase of development was to create a numerical acuity rating system for the various treatments focused on nursing time. This was accomplished by using a comprehensive literature review, expert focus groups, and well-established guidelines on instrument development. Once the tool was developed, it was piloted with a sample of patients in the

infusion center and re-evaluated with expert focus groups and factor analysis. Minor modifications were made and the tool was redeployed to a larger group of patients. The tool was then placed in eRecord for the next phase of development. Based on more than eight hundred patients' acuity scores, we identified that an acuity staffing tool can be effective to help balance nursing assignments. By taking patient acuity and treatment complexity into consideration, we were able to optimize patient scheduling in the infusion center. Overall, implementation of this acuity tool improved the scheduling processes by generating more manageable nursing assignments.

#### 41 **PROMOTING A PEER-TO-PEER STAFF EDUCATION MODEL FOR CLABSI REDUCTION**

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*Category: Oncology Nursing Practice*

The vision of this initiative is to promote a culture of safety and shared accountability in the prevention of hospital acquired conditions, specifically CLABSI, through a peer-to-peer education model. In the hematology oncology service at Brigham and Women's Hospital, CLABSIs can be particularly devastating for our immunocompromised patient population affecting length of stay, patient satisfaction and outcomes. In addition, CLABSI reduction is in line with our organization's strategic goals and critical to our Magnet re-designation. The American Nurses Association defines a culture of safety as "a collective and continuous commitment by organizational leadership, managers, and health care workers to emphasize safety over competing goals." It is in this spirit that the revised education model at Brigham and Women's promotes opportunities to allow for peer to peer feedback regarding the prevention of hospital acquired conditions in everyday practice. The goal of this initiative is to reduce CLABSIs in the oncology service through a peer-to-peer education model. The initial objective was to develop CLABSI prevention subject matter experts in the service. These experts will perform regular rounds during which they will audit process measures as well as providing teaching and coaching on best practices to their nursing colleagues in real time. Additional objectives will include nursing staff's increased knowledge of the hospital's CLABSI prevention bundle and improved CLABSI prevention process measures. CLABSI prevention quality rounds were conducted by nursing staff on a

monthly then quarterly basis with the support of the Professional Development Managers. Process and outcome measures are reviewed by the oncology divisional committee and CLABSI taskforce quarterly. The methods of evaluation will be nurses' knowledge of the hospital's CLABSI prevention bundle as evidenced by prevention process measures collected via audits in RedCap database and finally nursing staff's perception of peer to peer education will be measured through engagement surveys. This initiative has not only created subject matter experts throughout the service but encouraged shared accountability for quality care. The use for RedCap for real time process measure collection has also been a success of this program.

#### 42 **IMPROVING MEDICATION AND ARMBAND BARCODE SCANNING RATES ON 6 SOUTH (INPATIENT ONCOLOGY UNIT)**

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*Category: Oncology Nursing Practice*

Medication administration errors could lead to life threatening consequences, one way to preventing such errors is the usage of Barcode Medication Administration Scanning System. Identify Patient Correctly is on the top of the 2019 Hospital National Safety Goals per The Joint Commission. By using at least 2 ways to identify patient, this is done to make sure that each patient gets correct medicine and treatment. U of L Hospital Scanning Goal Rates: Armband 98% and Medication 95%. The purpose of this project was to improve Barcode Scanning Percentage on 6 South. Pre data was collected by giving out survey to staff regarding barcode scanning. Action plan/Intervention was based to the staff responses. Acquired a copy of Barcode Scanning Troubleshooting Guide (a step by step process to troubleshoot basic barcode medication administration challenges). Educated the staff about the guide/process. Gave each of them a copy of the guide and laminated copy was placed in each room (next to the computer for easy access). Post data was collected by giving out the same survey with additional questions: Is the laminated guide posted in each room helpful and accessible if needed. Prior initiating the project, data from January-February 2019 showed average Medication scanned = 93%; average Armband scanned = 97% which was below the barcode scanning rate goals. After educating staff, providing guidelines and posted a laminated copy in each room, data from March-April 2019 resulted an

average Medication scanned = 96% and average Armband scanned = 98% which shows improvement from prior data and achievement of scanning goal rates. By improving medication and armband scanning rates on 6 South, it reduces medication errors which aligned with U of L Hospital Goals. Availability of resources to staff - makes work more efficient and able to establish a safer process for delivering patient care. Improvement of scanning patient armband and medication, the unit comply with one of the The Joint Commission national patient safety goals, Identifying Patient Correctly, and also Hospital Goal was met.

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### **PREGNANCY SCREENING ACROSS THE CONTINUUM FOR PATIENTS RECEIVING CHEMOTHERAPY: REDESIGNING THE PRE-CHEMOTHERAPY CHECKLIST FOR ADULT AND PEDIATRIC ONCOLOGY NURSES**

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Category: Oncology Nursing Practice

Guided by the ASCO standards for chemotherapy administration, a gap analysis was conducted by our organization's adult and pediatric oncology stakeholder group. A critical gap was found; no institutional policy existed to guide standardized pregnancy screening or testing in patients receiving oncology treatment. This gap must be closed to decrease the risk of administering chemotherapy to a pregnant patient. The purpose of the project was to a) develop an institutional policy to define patients that have childbearing potential and establish expectations for screening and testing for pregnancy; and b) re-design the electronic pre-chemotherapy verification workflow to support nurse documentation across the continuum of care. Our aim is to increase the percentage of patients of childbearing potential tested prior to receiving chemotherapy treatment for an oncologic indication from baseline of 8% (n = 422) to greater than 90%. An institutional policy, developed by an interprofessional team, was implemented in November 2018. An electronic Pre-Chemotherapy Checklist Smart Form was developed to support successful implementation of the new policy. Assessment of compliance with appropriate pregnancy testing

prior to the initiation was done three (38%, n = 53) and six (63%, n = 62) months after implementation. The Pre-Chemotherapy Checklist Smart Form provided nurses with the flexibility to document elements associated with childbearing potential, pregnancy testing, and pregnancy screening in real time, while allowing elements to change within and across encounters. Integrating key elements with the electronic medical record and accessibility of reports, enabled clinicians to retrieve previously documented elements in a less burdensome way. Our next steps are to identify and address root causes to not performing a pregnancy test prior to initiation of chemotherapy. Using the electronic medical record is a novel approach that can be considered to support operationalizing quality indicators across the continuum of care.

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### **RELATIONSHIP BASED CARE: IMPLEMENTING A MODIFIED PRIMARY CARE NURSING MODEL IN THE AMBULATORY CARE SETTING**

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Category: Coordination of Care

Across the continuum of care, ambulatory oncology nurses work independently and collaboratively, partnering with patients, caregivers, providers, and other healthcare professionals in the design and provision of care in an ever-expanding array of cancer care delivery settings. Oncology nurses provide high-quality, evidence-based care across cancer care delivery modalities to enhance patient safety, reduce adverse events, impact and improve the patient experience, support and promote optimal health status, track patients response to treatment, and manage coordination of care within and among continually expanding, diverse, and complex populations. Therefore, oncology nurses are essential to the delivery of safe, high-quality care. The Primary Care Nursing Model (PCNM) has been defined as a nursing care delivery that focuses on the therapeutic relationship between a patient and a named nurse who assumes responsibility for a patient's plan of care. The PCNM facilitates professional nursing practice while establishing the nurses' responsibility and accountability



for decisions about patient care. The PCNM supports collaborative interdisciplinary practice through communication and coordination. Implementing a Modified PCNM in the ambulatory oncology setting, patients are assigned to their primary nurse for every encounter. This includes the Primary Nurse reviewing plan of care, completing new patient teaching and assessing the patient for response to the treatment. The implementation plan for PCNM included our patients seen in all areas of practice, including radiation, infusion and office practice. Nurses self-assign themselves to be the primary nurse thus beginning building a therapeutic relationship. This novel approach to care delivery is a patient and staff satisfier. Patient's regularly mention their Primary Nurse by name in our patient experience surveys. This model has improved the interdisciplinary collaboration between all of the teams. Nurses and their patients who utilize the PCNM, create relationships that strengthen over time, helping our patients' better cope with the challenges of a cancer diagnosis and its subsequent treatment modalities. The effectiveness of empirical knowledge coupled with the strengths of the nurse-patient relationships suggests that a need exists to highlight the caring aspects of a modified primary nursing model in the ambulatory setting.

## 56

### **THE CLOCK IS TICKING: DECREASING TIME TO ANTIBIOTIC IN FEBRILE NEUTROPENIC PATIENTS IN THE EMERGENCY DEPARTMENT**

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**Category:** Coordination of Care

Febrile neutropenia (FN) is an oncologic emergency and a serious complication of chemotherapy for patients with cancer. Prompt empiric broad-spectrum antibiotic therapy in FN is the universal standard of care. In our community-based facility, we observed that TTA is often 6–8 hours instead of the Surviving Sepsis Campaign's clinical guideline of administration within 1 hour of fever documentation. Delays are attributed to ED overcrowding, higher acuity triaged patients, or a lack of understanding of the emergent nature of FN and its treatment. The purpose of this

project was to develop a standard management process that improves timely and appropriate care, while decreasing TTA delays for patients with FN presenting through the ED. A multidisciplinary team was formed with an Oncology Clinical Nurse Specialist (OCNS), ED and oncology leadership to identify barriers and determine evidence-based strategies to reduce TTA. The team examined the current FN process in the ED and identified key opportunities for improvement such as identification at triage, appropriate level of triage, and a standard management process. The data will show that instituting several evidence-based interventions will decrease the TTA to meet the recommended clinical guidelines. It is essential that oncology nurses and ED staff establish and maintain a working relationship when providing care for FN patients. Cancer patients with FN are at high-risk for sepsis if antibiotics are not administered promptly. Each hour of delay in administering effective antibiotics decreases survival by 8%, while each hour of delay in TTA results in an 8 hour increase in length of stay (LOS). Timely treatment of FN is required to minimize patient complications and promote improved patient outcomes. TTA will be the primary outcome metric for this quality improvement process.

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### **IMPLEMENTING A CANCER SURVIVORSHIP PROGRAM FOR INDIVIDUALS WITH RECURRENT BREAST CANCER**

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**Category:** Survivorship

Patients are living longer with recurrent breast cancer, yet there is a lack of survivorship programs for these individuals. They face unique challenges due to the lack of curative treatments and limited supportive care resources. Challenges include fluctuations in functional status, changes in relationships, communication with loved ones, and existential concerns. Health related quality of life has been found to be different, further widening the gap in care. The purpose of this quality improvement project were to: implement a survivorship program that uses a coaching intervention tailored to the needs of individuals living with recurrent breast cancer, increase their

quality of life, and evaluate patient satisfaction with the program. Survivors were referred to the project coordinator, an Oncology Nurse Navigator, for a one-hour coaching intervention tailored to their needs based upon results of their Functional Assessment of Cancer Therapy-Breast (FACT-B) survey. Patient satisfaction was assessed immediately after and at two weeks post the intervention. A paired t-test was used to evaluate quality of life scores before and two weeks following participation in the survivorship session. Statistically significant ( $p=.000$ ) improvements were observed overall and in each subscale of the FACT-B survey. Patient satisfaction was high immediately post the intervention and remained high at the two-week assessment. Results of this project support previous findings from studies that addressing survivorship concerns in individuals living with recurrent breast cancer is an essential part of providing quality care. Prior to implementation, survivors with recurrent breast cancer were not offered this service which led to a perception among survivors that resources were not available for those living with cancer that had returned. This project demonstrated the feasibility of implementing a survivorship program tailored to the unique needs of this patient population. Creation of an infrastructure that promotes individualized care to survivors with recurrent breast cancer is an essential component of providing holistic care across the cancer continuum. Oncology nurse navigators have a unique relationship with their patients and implementing this program provides an opportunity to address these important and clinically relevant unmet needs.

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### THE NURSE'S ROLE IN IMPROVING THE COMPLETION OF ADVANCE CARE PLANNING IN THE AMBULATORY SETTING

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Category: Symptom Management and Palliative Care

Oncology Nurses are crucial in helping patients/families with disease related symptoms and psychological implications. Given their focus on family centered healthcare, oncology nurses are often the first to recognize the need for care consistent with patient's values and goals. The Oncology Nurses' role as a generalist has been growing, yet has not been

fully defined. A documented ACP is imperative to assure personal healthcare decisions are known and honored when a patient is unable to speak for themselves. One of our organizations quality initiatives is ensuring every patient has an ACP documented in the EMR. The oncology nurses in ambulatory setting are in prime position to meet this need. The first step was understanding the process of patient registration. We noted the new patient completes and signs several forms. We added ACP documents as part of new patient registration. This change helped normalize the document and removed preconceived notions commonly associated with an ACP. The team at the front desk asks the patient to complete the ACP when checking in, advising they can review the ACP with the nurse. The RN asks the patient if they need help understanding/completing the document. By promoting a uniform message nurses have led this initiative in improving our ACP completion rate in the least threatening manner while following up on the patient's response. By educating the clinical team, RN's were empowered to educate the patients. Nurses are the most trusted professionals. Oncology nurses must encourage and facilitate ACP conversations with patients/families whatever the setting. Nurses may need to educate and reassure other disciplines that assisting patients and their families to make healthcare decisions by promoting ACP conversations is part of the Nursing Code of Ethics and within their scope of practice. We achieved a 66% completion rate January-June 2019 compared to 8% completion rate 2018. One of the reasons for the increase is the partnership and collaboration between administrative/clinical teams and data shared monthly by leadership to sustain improvement. Understanding ACP as a process of ongoing conversations that should continue across time and settings requires a comprehensive approach beyond one setting and single discipline (Izumi, 2017). Nurses are in a unique role to lead ACP implementation strategies to transform a culture and movement to ACP for all.

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### IDENTIFICATION AND ASSESSMENT OF GYNECOLOGIC CANCER CAREGIVER DISTRESS: AN INPATIENT QUALITY IMPROVEMENT INITIATIVE

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**Category: Survivorship**

Family caregivers (CG) are essential to the emotional support and physical care of patients with gynecologic cancers. CGs typically receive little support and training and have high levels of distress and unmet needs. Our aim was to identify and assess CGs of inpatients admitted to the gynecologic oncology service in order to better support their needs. All CGs of patients with gynecologic cancers admitted to the Magee-Womens Hospital inpatient service were introduced to the new Gynecologic Oncology Family Support and Research Center by student research assistants. Each CG rated their distress on an 11 point “distress thermometer” (0=“No Distress” to 10=“Extreme Distress”) and completed a brief demographic and needs assessment. A tiered protocol was used for follow-up based on level of distress. Descriptive and comparative statistics were performed. Of the 88 CGs evaluated, 79 (90%) were included in analysis (5 CGs did not complete an assessment; 4 patients did not have a gynecologic cancer diagnosis). The majority of CGs were male (n=41, 52%), 36 (46%) were spouses; median age was 56 years. Patients’ median age was 63 years and 42 (53%) had ovarian cancer, 24 (30%) uterine, 6 (8%) cervical and 7 (9%) vulvar. Patients were admitted for postoperative care (n=35, 44%), chemotherapy or cancer complications (n=43, 39%), or with a new diagnosis (n=10, 13%). The average caregiver distress score was 4.8. Female CGs had significantly higher distress scores (5.8) compared to males (3.8;  $p = 0.01$ ). Spousal caregivers had lower distress scores at 3.7 vs. 5.7 for other relatives (e.g. daughter, sister) ( $p=0.02$ ). No difference was seen in CG distress levels of patients between different types or stages of gynecologic cancers. The top three distressing issues CGs faced were 1) Managing patient symptoms (n=27, 34%), 2) Managing one’s own emotional health (n=16, 20%) and 3) Need info on cancer (n=14, 18%). The management of patient symptoms was the most distressing item to CGs. More research is needed to look at the impact of caregiving and how to better

support gynecologic oncology CGs. Actively identifying, assessing, and intervening to meet needs of CGs is rarely systematically done during inpatient care; our project demonstrates these CGs have distressing needs that can be intervened on during inpatient care.

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**A MULTI-PRONGED APPROACH TO PREVENTING 30 DAY READMISSIONS**

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**Category: Coordination of Care**

Reducing 30 day readmission rates is a quality priority for cancer centers nationwide. A quality improvement project was conducted to better understand our readmission trends and patient reported reasons for readmission. A multi-pronged approach to reducing 30 day readmissions was developed to address various contributing factors. The study showed that 64% of patients called the clinic between their 1st and 2nd admission and on average, patients had a follow up appointment 6 days post discharge and were readmitted 10 days post discharge. This resulted in a “Post Discharge” workgroup, which focused on improving the post discharge process by implementing an inpatient to outpatient electronic hand off and a follow up post discharge phone call (w/in 48 hours) to focus specifically on the patient’s admission and allowed teams to proactively address escalating issues. A second work group focused on care coordination and discharge planning, as patients reported feeling discharged too quickly or without supportive services at home. There were several patients readmitted because they did not fill their prescriptions for various reasons including insurance coverage, medication not available or just forgot. The work of this subcommittee resulted in the development of a meds to beds program and a discharge readiness assessment (for both the care team and the patient) to ensure needs were met prior to discharge. A third group focused on integrating palliative care services. Standardized referral orders, consult note templates, and referral criteria (triggers) to palliative care were all addressed through this team. The addition of a palliative care nurse coordinator further strengthened this work and allowed for a dedicated resource to ensure patients

received needed services. Dashboards were developed to track compliance with the interventions (process metrics) and 30 day readmission rates. From FY17 Q3 to FY19 Q3, our Medical Oncology unit has seen a 7% decrease and our hematology-oncology unit has seen a 10% decrease in 30 day readmission rates. Overall awareness and focused discussions with staff likely contributed to the reduction in 30 day readmission rates, and a continued reduction is anticipated as compliance with the interventions continues to strengthen. While it is difficult to attribute the reduction to a specific intervention, the multi-pronged approach has proven to be successful by addressing complex barriers to preventing 30 day re admissions.

### 63 GET YOUR EDUCATION ON: USE OF A CHEMO RESOURCE BINDER

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Category: Oncology Nursing Practice

In late 2017, our unit went from a Medical Surgical unit to a full-service Oncology unit. This community-based inpatient unit began administering chemotherapy in November 2017. None of the nurses on the unit had ever administered chemotherapy. Additionally, it has become more difficult to find experienced oncology nurses who can administer chemotherapy that want to work on an inpatient unit. Part of hospital requirements to administer chemo include an 8-hour didactic chemotherapy boot camp, a written test, and 32 hours at our infusion center doing “hands on” chemotherapy with an experienced preceptor. The purpose of this project was to effectively assist nurses with their comfort and knowledge level for administering chemotherapy. A pre-survey was sent to nurses asking them to identify their comfort and knowledge level in administering chemotherapy and availability of resources on the unit. The pre-survey indicated we had room for improvement. A resource binder was created for every nurse on the unit. The binder consist of chemotherapy quick facts, card holder with medical staffs business cards, a section for each chemotherapy that is administered on the unit with steps for administration. It also contains coverage of side effects, notes area, calculation page, and chemo precaution sheet. The survey indicated that the comfort and knowledge level for administering chemotherapy by newer nurses was lacking on our unit. Nurses consistently presented with the

same questions and frustration due to lack of knowledge. Comparison of pre and post survey results will be compared. As a newer oncology unit, providing an individualized chemotherapy binder for every nurse will increase availability of consistent chemotherapy information on administration; increase communication; decrease safety issues; ensure proper administration of chemotherapy; ensure proper communication with the correct staff; provide education for patients, and provide support for the chemotherapy nurse. This is project can be easily replicated in any facility with minimal cost investment.

### 78 THE PREVENTION OF ANTICANCER THERAPY EXTRAVASATION EVENTS IN THE ONCOLOGY CLINIC INFUSION PATIENT— A QUALITY IMPROVEMENT STUDY

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Category: Oncology Nursing Practice

An extravasation results in negative patient experience and outcomes related to increased pain, tissue injury, and inappropriate medication administration. In 2018, Allegheny Health Network Cancer Institute Medical Oncology Clinic’s overall extravasation rate was 0.12%. The acceptable benchmark for extravasations is 0.09%. The purpose of this quality improvement project was to improve patient safety and experience by decreasing chemotherapy extravasation events. Medications included in this project: Bendamustine, Mechlorethamine, carmustine, teniposide, vinblastine, vincristine, vinorelbine, daunorubicin, doxorubicin, epirubicin, idarubicin, dactinomycin, mitomycin, mitoxantrone, docetaxel, paclitaxel, paclitaxel protein bound particles, oxaliplatin, and etoposide. Numerator: Number of extravasations of above medications. Denominator: Number of infusions of above medication. Benchmark: EBP literature review identified a benchmark of 0.09%. A multidisciplinary quality improvement team was developed to decrease extravasation occurrences utilizing PDSA problem solving methodology. The team identified root causes of the problem by utilizing a process flow map and observation tools. The study revealed that the nurses from 18 different clinics were using various IV catheters and supplies which resulted in a variation in practice. All locations lacked the use of a stabilization dressing. There was also a variation among education and training of staff with the lack

of a formal IV didactic course. Finally, there was not a standardized vein assessment process for nursing when assessing a patient for peripheral IV access prior to starting a chemotherapy course. The process measures created were supported by evidence based practice guidelines and those Interventions included standardization of equipment/supplies, peripheral intravenous access didactic and skill training, and development of a vein assessment tool. The quality improvement team exceeded the goal to reduce anti-cancer therapy extravasations to at or below 0.09%. The current rate of events is 0.0006%. The team continues to assess for opportunities to reach a stretch goal of 0%. Allegheny Health Network Cancer Institute was able to decrease extravasation events from 0.12% to 0.0006% due to the innovation of this quality improvement team by standardizing supplies, ensuring staff competent with peripheral IV insertion knowledge and skills and by developing a standardized vein assessment tool.

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### **A WORKSHOP ON IMPROVING ONCOLOGY NURSING KNOWLEDGE, CONFIDENCE, AND SKILL IN USING TELEPHONE TRIAGE MODELS**

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*Category: Oncology Nursing Practice*

Telephone triage in oncology is an essential practice, as more cancer care has transitioned to the ambulatory setting in the last few decades. Despite significant advances in oncology, care delivery can be fragmented with shortcomings in communication, care coordination, and accountability. The nurse is often the first point of contact through telephone triage and is responsible for proper symptom assessment and subsequent communication with a licensed independent practitioner. Recent literature has demonstrated effectiveness for training includes interventions such as two-day orientations, role play, recording of potential calls, case scenarios, and identifying interpersonal competency. Nurses performing telephone triage require standardized guidelines and training to ensure effective and safe healthcare delivery. Standardized training on telephone triage has shown to increase nurse preparedness, confidence, skill, and knowledge, resulting in positive patient outcomes. However, not all institutions implement training or standardized protocols, often leaving nurses to learn on the job. The purpose

was to make changes in oncology-nurse knowledge, skill, and confidence using telephone triage nursing models that utilize pre-post test design. Guided by the Johns Hopkins University Evidence-Based Practice Model, a 12-week workshop includes an evidence-based didactic lecture, structured group case scenario, and triage simulation. Aims are evaluated by an online, 12-item survey (knowledge and confidence) and simulation (skills) utilizing a 40-item skills checklist. Baseline testing includes survey and simulation without feedback. At 12 weeks, the same participants repeat the survey and simulation with feedback. At 16 weeks, participants repeat the survey to assess retention of knowledge and confidence. Pre-test mean scores compare to post-tests for knowledge and confidence at both time-points. Percent of completed skills compare at baseline and 12 weeks. Oncology nurses are responsible for telephone triage at this cancer center. There is no standardized training offered for this skill during employment. It is imperative that oncology nurses have robust training embedded within orientation as well as annual competency to ensure knowledge, confidence, and skills are kept at an optimal level. This project supports the professional practice model, shared governance, and provides nurses a structured and individualized approach to their oncology telephone triage assessment. It not only benefits an existing process within the oncology center, it highlights a new educational strategy towards optimizing nursing practice and patient experience.

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### **IMPLEMENTATION OF AUTOMATED POST-DISCHARGE CALLS IN A COMPREHENSIVE CANCER CENTER**

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*Category: Coordination of Care*

Readmissions are responsible for considerable health care spending in our nation. Recent studies have shown that automated post-discharge phone calls improve communication between patients and healthcare providers and may potentially lead to a reduction in readmission rates, medication errors, missed appointments and emergency department visits. The purpose of this initiative is to identify issues patients may have immediately following discharge from the hospital that may lead to readmissions, medication errors, missed appointments and emergency department visits. This NCI-designated comprehensive cancer center engaged

in a quality improvement project to provide automated post-discharge follow-up calls to patients within 1 to 3 days after discharge. The automated system asks patients/caregivers if they have concerns or questions about their discharge instructions, medications, follow-up appointments, and their current health status. They may also request a nurse to call and are invited to leave feedback about their hospitalization. When patients indicate issues, the system alerts and the nurse discharge coordinator calls the patient and immediately addresses the issue/s. Staff education outlining the process was conducted across the three inpatient oncology units. Pre-printed postcards were added to the admission packet and discussed with the patient upon admission. In addition, reminder stickers were attached to the patient's discharge instructions as a reminder. Biweekly participation and compliments reports were sent to staff and leadership to encourage ongoing discussion. During the 12 week study period, 322 discharges occurred between the three inpatient oncology units. Of the 322 patients called, 178 (55%) responded. Forty-seven (26%) of these patients triggered an alert; instructions 10%, medications 10%, health status 4%, follow-up care 8%, contact request 3% and service 4%. Over this time period, the nurse discharge coordinator intervened to assist patients with procuring medications, providing medication instructions, coordinating home or hospice care, clarifying or obtaining follow-up appointments, and addressing new or worsening clinical conditions. These anecdotal data suggest that early intervention will positively impact readmission rates, medications errors, missed appointments and emergency department visits. Readmission rates and emergency department visits will be measured over time to determine the long-term impact of automated post-discharge calls.

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### **INCREASING PATIENT SAFETY AND SATISFACTION BY IMPROVING INPATIENT AND OUTPATIENT COMMUNICATION**

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Category: Coordination of Care

Huntsman Cancer Institute (HCI) is a NCI Comprehensive Cancer Hospital, which has 100 inpatient

beds, 5 infusion centers, 3 radiation oncology centers and 13 Multidisciplinary Oncology Teams. Due to the increasing chronic nature of cancer care, patients frequently need care in all areas of the hospital. This type of mobility has an impact on patient safety and continuity of care. As an organization, we recognized that lapses of care between hospital areas were occurring. This caused frustration amongst staff and unnecessary obstacles for patients. Therefore, we seized the opportunity to improve communications between inpatient and outpatient units as well as ancillary services and looked for ways to decrease variation in practice. A task force was created that had representation from all areas including IT and nursing education. This group surveyed frontline staff to ascertain the pertinent information that each group relies on in order to safely and effectively care for patients. With the support of our EPIC analysts we were able to create a customized report within our Electronic Medical Record (EMR) that can be viewed by all areas of practice, a previous limitation of our system. Furthermore, information within the tool is updated in real time by pulling data from the existing medical record. Examples of the content currently built into this tool include current patient statistics (labs, vital signs, weight), patient history (surgical and medical), provider notes, recent care encounters (including outpatient and inpatient visits), case management planning, current and past medication, and patient care team members. Currently, the second phase of this tool is focused on streamlining communication between events such as admission and discharge. Using existing EMR functions, a new tool was developed to improve communication across a complex organization, leading to an increase in patient safety and more reliable continuity of care. This task force harnessed an innovated approach that resulted in a communication tool that was implemented system wide to both outpatient and inpatient staff. Because this tool is integrated into our EMR, updates and improvements will be easily maintained. This project has successfully increased communication between departments as measured by Epic usage reports. In the future, a staff survey will be used to continue to improve hospital wide care coordination and determine next steps for this project.

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### **IMPLEMENTING AND EVALUATING AN URGENT TRIAGE PROGRAM IN AN AMBULATORY CANCER CENTER**

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Category: Coordination of Care

Emergency Department utilization by oncology patients is high; approximately 300 patients monthly. Patients present most often M-F, 8am-4pm. Approximately 30% of these patients were discharged from the ED. Top five symptoms reported in ED: nausea/vomiting, diarrhea, shortness of breath, pain, & fevers. Having symptoms triaged by an experienced oncology nurse may have prevented these patients from presenting to the ED. The purpose of this program was to design an urgent triage call line to allow patients to reach a provider to discuss symptoms before presenting to the Emergency Department. The goals were to decrease ED utilization and increase patient satisfaction. A multidisciplinary task force was formed to design this program. The ONS Telephone Triage for Oncology Nurses 3rd edition book was used to inform the process of nursing triage. Triage assessment criteria and EHR standard documentation was developed. Nurse training occurred over two-month period and the “pilot” phase occurred over three months. A prompt was added to the Cancer Center telephone line to alert patients of new triage line availability. “Urgent” appointment slots were added into daily provider schedules to allow for same day visits. Each disease team decided on a “centralized” vs. “decentralized” model for managing patient calls. An urgent triage nurse is available from 8a-4:30pm, M-F. Number of calls received from March to August: 2,580. Number of urgent same day appointments booked: 539. Data shows the number of patients that presented to the ED overall has increased. However, the number of patients being discharged from the Emergency Department has decreased. This indicates the number of patients that are clinically appropriate to receive care in the ED is improving. Patients report increased satisfaction with being able to connect to an experienced clinician. Program evaluation is ongoing. Nursing staff work at the top of their licenses and triage patients appropriately based on questions or symptoms. Providers are alerted to patients calling with concerns. Communication and relationships have improved because of the collaboration with this program. This program encourages patients to speak with a provider before utilizing the emergency department. This program will continue to evolve with the goal of keeping patients from seeking care in the Emergency Department when their care can be managed in alternative ways.

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## IMPLEMENTING A HAND-OFF TOOL TO IMPROVE TRANSITION OF CARE FOR ONCOLOGY CLINICAL TRIAL PATIENTS

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Category: Coordination of Care

Patients treated on early phase clinical trials can have unique needs. They may receive novel treatments with little or unknown toxicity data. Clinical trial patients may experience unique and latent adverse effects from study treatments that require management after their participation in the trial ends. The transition of care from clinical trial to Standard of Care poses challenges as well as opportunities. Transition of care refers to the shift in care of patients from one team to another. This may occur in oncology clinical trials when study treatment ends due to progression, toxicity, response and withdrawal of consent. One opportunity to improve effective transition of care is ensuring clear and efficient communication to all parties involved in the patient's care. An effective hand-off tool can improve patient outcomes. Our early phase oncology research nursing team is implementing a standardized hand-off form upon end of treatment for patients participating in oncology clinical trials. This will help ensure better continuity of care and improve patient outcomes. We expect that the hand-off form will clarify roles and responsibilities between the two teams once the patient is off study. Such responsibilities can include delineating which team will renew medications or order medications used to manage study-related adverse effects. The form will also aid in medication reconciliation. Patients may be taking new medications to manage study-related adverse effects and need to be continued in the standard of care setting or may have been asked to discontinue a medication before participating in the trial because it was prohibited. The hand-off would prompt the patient's treating provider to consider resuming the discontinued medication. By providing a standardized handoff, we anticipate improved reporting of delayed adverse effects that may be attributable to study drugs. Effective hand-off can also improve patient adherence to study-related follow up visits as well as standard of care visits.

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## MALNUTRITION SCREENING IN THE AMBULATORY INFUSION SETTING

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**Category: Screening, Early Detection, and Genetic Risk**

The prevalence of malnutrition is highest within oncology. Malnutrition affects 40–80% of oncology patients. Impaired nutrition due to the side effects of chemotherapy, radiation or surgery may contribute to poor nutrition status. The consequences of malnutrition are significant, including poor prognosis, treatment reductions, functional status and quality of life (QoL), increased treatment toxicity and post-surgical complications. Malnutrition can contribute to increased length of stay and a decrease in performance status leading to higher healthcare costs. Patients who lose up to 20% of their body weight have 50% or greater readmission rates. Traditional malnutrition screening using paper forms, lacking instruction and follow up have been a challenge. Malnutrition screening is a fundamental to oncology care. Early assessment, identification and intervention has shown to be an effective strategy in managing malnutrition. The nurse's role in assessing patients for malnutrition cannot be underestimated. The purpose of this project was for the nurses to lead the assessment regarding the presence and extent of malnutrition. This project describes implementing an electronic nutrition screening process for patients upon starting chemotherapy in an NCI-designated cancer center. The clinical oncology nutritionist, nurse managers and director of nursing developed, coordinated and implemented this quality improvement project. Using a validated instrument with demonstrated rigor for its use in the outpatient adult oncology setting. The MST has two questions pertaining to recent unintentional weight loss and poor nutrition intake due to a decrease in appetite. The MST is scored between 0–7. A score of greater than two (>2) is considered at risk for malnutrition. This innovative model for optimal screening of oncology patients for malnutrition and follow up has demonstrated an improvement in patient care through use of a validated screening tool and nutrition education and intervention from an oncology dietitian. Patients at risk for malnutrition per the MST are further evaluated and a nutrition care plan is created to avoid severe untreatable malnutrition. This program helped integrate and improve coordination of care, and optimization of our EMR to screen and

follow up with our most fragile patients. The partnership between nursing and nutrition contributed to the coordination of care and the promotion of positive patient care outcomes. Future recommendations include expansion of the model to other service-lines, designing strategies to evaluate other vulnerable populations.

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**EYES ON LINES: A STRUCTURAL CATALYST FOR NURSE LEADERS TO DECREASE CLABSI**

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**Category: Oncology Nursing Practice**

Central line-associated bloodstream infection (CLABSI) is a significant healthcare-associated infection impacting patient outcomes. CLABSIs result in increased lengths of stay, healthcare costs and higher mortality rates. A significant number of patients facing a cancer diagnosis will need to have a life-saving central line placed. This patient population is most at risk for developing an infection due to an immunocompromised state. Evidence reveals most central line infections are preventable; driving healthcare organizations to implement bundled evidence-based prevention practices to eliminate these infections. In response to an increasing Standardized Infection Ratio (SIR), our institution performed a rapid improvement event to identify root causes for our rising CLABSI rate. From this event, a CLABSI steering committee, comprised of Clinical Nurse Specialists (CNS), a Performance Improvement Consultant, an Infection Preventionist, and a Nursing Data Analyst was formed to prioritize and bundle interventions to decrease CLABSI rates. In 2017, the CLABSI steering committee developed a methodology to empower unit leadership; nurse manager and CNS, to participate in central line maintenance compliance. Eyes on Lines is a systematic, shared process in which nurse leaders round on all central lines throughout the institution. During these weekly rounds, the nurse leadership team provides real-time feedback to staff nurses regarding central line bundle compliance. Data is collected on every line assessment and opportunities are trended over time. Additionally, quarterly central line prevalence days are completed by a multidisciplinary group of key stakeholders. Every inpatient line is assessed for bundle compliance by a team of nurses and infection



preventionists; line necessity is reviewed by a team of physicians. Through these systematic processes and data transparency, units develop action plans addressing bundle non-compliance trends. To date, central line bundle compliance has steadily increased over the past three years, with a 22% reduction in CLABSIs over that same time. Engaging unit nursing leadership teams and physician colleagues in Eyes on Lines is an avenue to empower all members of the patient care team to participate in strict bundle compliance. Eyes on Lines has been integrated into leader standard work, leading to a reduction in the incidence of CLABSIs, and contributing to an improvement in overall patient outcomes.

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### SAFE ADMINISTRATION OF INTRAVESICULAR CHEMOTHERAPY

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Category: Treatment Modalities

In light of the recent national shortage of BCG (Bacillus Calmette-Guerin) there has been an increased use of chemotherapy (Gemcitabine) administered via the intravesicular route for the treatment of urothelial carcinoma of the bladder. In our institution, the infusion nursing staff administer this treatment. With the increase in administration of chemotherapy via this route, there is an increased risk of chemotherapy exposure to staff. This is a quality project aimed at standardizing both patient and staff education surrounding the processes of administration of intravesicular chemotherapy. The aim is to increase the understanding of staff, minimize the risk of patient and staff exposure to chemotherapy related to incontinence events and increase efficiency of our practitioner ordering and RN documentation. Interventions: Create and adopt an institutional standard of practice for intravesicular chemotherapy and immunotherapy administration. Collaborate with urology providers to research and understand the use of penile clamps in this population. Develop/revise printed education for patients undergoing treatment. Educate nursing staff regarding intravesicular treatments. Enhance communication amongst urology and infusion nursing teams through the creation of

an electronic intravesicular nursing note and order template for treatment within the electronic medical record. Interventions will be evaluated by the monitoring of institutional quality reporting for chemotherapy spills via intravesicular route and delays in care of this population related to poor team communication. A brief survey will be developed to evaluate staff understanding and comfort with administering intravesicular chemotherapy before and after interventions.

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### EVALUATION OF HAZARDOUS DRUG CONTAMINATION IN BATHROOMS IN AN AMBULATORY ONCOLOGY CENTER

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Category: Oncology Nursing Practice

Exposure to hazardous drugs (HDs) poses a health risk for healthcare workers (HCWs), especially those in oncology settings. Many hazardous drugs are excreted unchanged or as active metabolites in urine and feces. Evidence has shown that bathrooms of patients receiving chemotherapy at home are contaminated with HD; however, no information exists on HD contamination in healthcare settings. This poses a potential risk of exposure to HCWs or other patrons using the same bathrooms. Wipe testing is recommended by the United States Pharmacopeia in chapter 800 (USP <800>) as a method of quantifying contamination and evaluating subsequent mitigation strategies. Although studies have examined surface contamination in pharmacies and patient care areas, no studies have been published on wipe testing bathrooms in healthcare facilities. Therefore, a quality improvement (QI) project was initiated to ascertain the degree of contamination in both a public restroom and a secured staff bathroom in an Ambulatory Comprehensive Cancer Center with the goal of identifying the degree of contamination risk and ultimately finding potential interventions to prevent or minimize exposure. An analysis of infusion appointments revealed that two of the most commonly used agents were 5FU and platinum compounds. These drugs were selected for the testing procedure. The protocol will include twice daily wipe tests, for five consecutive days. The

first test would be done prior to patient arrival in the morning, and the second test would be done late afternoon/early evening. Identical testing would be performed in a secured staff restroom without patient access, on the Infusion floor near the pharmacy. The ongoing QI protocol is designed to occur biannually. Key stakeholders include individuals from nursing, pharmacy, medical staff, quality, housekeeping, and facilities. Initial testing is scheduled to occur in October, 2019. Results will provide insight into the degree of HD contamination and the effectiveness of cleaning procedures. The wipe testing protocol is designed to be repeated at 6-month intervals. Testing for only two hazardous drugs is a potential limitation; however, the testing protocol can be expanded to other drugs depending on initial results. It is hoped that the information learned will not only benefit HCWs within the organization but will also advance the pool of knowledge for protecting HCWs throughout the oncology profession.

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### **“WE GOT YOU COVERED”—IMPROVING AND SUSTAINING SAFE HANDLING PRACTICES SURROUNDING CHEMOTHERAPY ADMINISTRATION**

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*Category: Oncology Nursing Practice*

Although guidelines for safe handling of chemotherapy have been available in the United States for over 30 years, nursing staff compliance with these recommendations continues to be problematic. Between 2017 and 2019, two organizations, U.S. Pharmacopeia and the Oncology Nursing Society issued updated standards and guidelines, respectively, on safe handling of hazardous agents, including chemotherapy. Observations of the Oncology Service Line nursing care staff at our community hospital confirmed that we were not consistently practicing in alignment with these recommendations. To address this finding, we initiated a performance improvement project in September, 2018. The purpose of this initiative was to identify, mitigate and/or eliminate barriers to compliance with safe handling of chemotherapy in the adult inpatient and ambulatory care settings of our institution. Baseline data included 3 months of direct

staff observations utilizing a standardized tool, distribution of the American Association of Critical Care Nurses Healthy Work Environment Assessment Tool (N.D.) and an adapted version of Polovich and Clark's (2012) Chemotherapy Handling Questionnaire to all core nursing care staff. Participation was elective and staff did not receive compensation for participating. Survey results demonstrated knowledge deficits related to hazardous drug risk and low self-reported compliance with recommended guidelines. Following baseline data collection and Institutional Review Board review, our team implemented a model for improving safe handling practices through education, audit and feedback. Our goals were to 1) improve staff knowledge of safe handling practices and 2) achieve 50% compliance by 3 months and 90% compliance by 6 months with safe handling practices following implementation. In January, 2019 we trained all core nursing care staff on guideline-driven practices for safe handling of chemotherapy and body fluids for patients receiving chemotherapy. Beginning February, 2019, audit results were posted monthly for 6 months to provide staff with observed compliance rate trends and reminders to improve compliance with safe handling activities. At the end of the 6 month observation period, the Chemotherapy Handling Questionnaire was re-distributed to all staff to evaluate changes in knowledge regarding safe handling as well as self-reported compliance with PPE utilization.

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### **IMPLEMENTING A SAFETY PLEDGE BETWEEN NURSES AND PATIENTS TO REDUCE FALL RATES ON A BONE MARROW TRANSPLANT UNIT**

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*Category: Patient Education and Safety*

For the last 8 years, patient fall rates on our 30-bed inpatient Bone Marrow Transplant unit (BMTU) have held steady around 3.16 per 1000 patient days despite attempting multiple fall prevention interventions. In contrast, our comparator units reporting to the National Database of Nursing Quality Indicators (NDNQI) have decreased their fall rates, most recently to a mean score of 2.53 per 1000 patient days. We recognized we had work to do to meet our comparator unit benchmark scores and even more work to achieve our institutional goal of being in the NDNQI 25th percentile, currently 1.26 falls per 1000 patient days. Falls can have significant impact on patients' experience including increased length of stay and physical injury. We wanted to do right by our vulnerable patient population, so we

worked with our unit base nursing practice council to implement a new intervention to keep patients safe and prevent falls during their admission. A literature search supports the notion of better patient outcomes when nurses and patients partner on interventions. We created a safety pledge that the admitting nurse and patient review and sign together once all aspects of the pledge have been explained by the nurse and agreed to by the patient. The safety pledge includes interventions that the patient can take independently to prevent falls as well as interventions the nursing staff may take during the course of the admission to prevent falls. The signed safety pledge is posted in the room visual to all for the duration of the admission. Success of this intervention will largely depend on nurses' engagement with the project so we turned to the lean process to help roll out this intervention. While still in its infancy, the safety pledge roll out has been smooth and we are hopeful we will see statistically significant change in our patient fall rates over the next six months to bring us closer to the NDNQI benchmark and 25th percentile goals as we consistently implement this intervention. Nurses have a professional responsibility to measure, evaluate and improve practice to better patient experiences and outcomes. The safety pledge between nurses and patients to reduce falls on a BMTU is an innovative approach to an identified safety issue.

#### 140 **IMPROVING EMERGENCY RESPONSE IN THE OUTPATIENT ADULT BLOOD AND MARROW TRANSPLANT CLINIC**

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Category: Oncology Nursing Practice

Early recognition, intervention, and effective treatment of a deteriorating patient is crucial in providing optimal patient outcomes in an outpatient Adult Blood and Marrow Transplant (ABMT) clinic. With ongoing expansion of the ABMT clinic to accommodate a growing patient census and higher patient acuity, an emergency response plan is necessary. The purpose of this project was to increase readiness of front line staff in the ABMT clinic to respond appropriately and effectively to medical emergencies. A survey was sent out to front line staff of the ABMT clinic, measuring comfort level and knowledge of emergency response procedures. A high percentage of staff were unable to

locate the code cart or AED. When asked about comfort level in dealing with a medical emergency, more than half of staff reported feeling only "somewhat comfortable". An education plan was put together by the RN, Nurse Manager, CNS, COD, and CTL, based off survey response. Staff were required to participate in a Mock Code, which took place every day over the course of a week. Emergency response team roles were identified and tailored to fit the needs of the clinic. Policy review was conducted by the RN and clinical pharmacist, and a medication emergency kit was placed in each medication dispensary. Education sessions were held for staff on emergency policy and management. Front line staff were given a badge resource with the hypersensitivity protocol to provide a quick reference at the bedside. As of September 2019, surprise mock codes have been initiated in the clinic and are being timed from beginning to end. These time studies will allow for objective data to be obtained surrounding response times. This data will be collected through November, 2019. A post-survey was initiated to evaluate interventions. Knowledge and comfort level amongst staff have increased by a large percentage, with anticipated improvement in response times. Based from the survey, this initiative has been highly successful. Updates have been made to our emergency equipment and areas for improvement have been identified. The need for an emergency response plan in the ABMT clinic has been largely validated by the survey results and ongoing response times during mock codes. This initiative has led to improved staff competencies and earlier interventions for our patients.

#### 147 **NO DRESSING LEFT UNDONE; IMPROVING CENTRAL VENOUS CATHETER DRESSING INTEGRITY WITH STANDARDIZED KITS RESULTING IN DECREASED CLABSI RATES IN AN ONCOLOGY HOSPITAL**

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Category: Oncology Nursing Practice

Central venous catheters (CVCs) continue to be a risk for all patients, but especially for immunocompromised cancer patients. These patients are often neutropenic, undergoing chemotherapy treatments, enduring skin rashes and mucositis making them susceptible to central line associated bloodstream infection (CLABSI). In assessing our 100 bed oncology hospital we found many of departments were performing CVC dressing changes differently. In addition there were multiple dressing options to choose from throughout the hospital. This

led to the infection control department initiating a project to standardize CVC dressing changes by creating custom kits for all types of CVCs. Upon initiating this project we were met with some resistance from staff. Nurses felt like administrators were dictating their nursing practice. Nurses wanted to individualize the dressing to the patients' needs. These feelings of doubt may have been precipitated by an overwhelming nursing preference to use a low adhesive "sensitive" dressing; a dressing which proved to be problematic. More specifically, our initial audit on dressing integrity on the bone marrow transplant unit, where the CLABSI rates were the highest, revealed that 85% of the patients had this "sensitive" dressing in use and of these dressing 55% were found to be peeling on sides or leaving air gaps at the lumen exit. Knowing we needed to standardize the process for CVC dressing changes and port access, as well as providing a CVC dressing product that would remain intact for long inpatient stays, we created three central line dressing kits; one for non-tunneled CVCs, one for tunneled CVCs, and one for implanted ports. As we began to teach to these new CVC kits it was apparent that we needed to review some dressing application basics. Many patients were noted to be allergic to plain film dressings. In actuality, these patients had been experiencing skin tears from dressings that were stretched when applied. Improper drying times of cleansing agents and under utilizing skin barrier film was also noted. After intensive CVC teaching and overcoming multiple barriers to use, our hospital now utilizes standardized CVC dressing kits for non-tunneled CVCs, tunneled CVCs, and implanted ports. One year following the implementation of these kits we have observed a 52% decrease in CLABSI rate ( $p=0.0381$ ) and we went six months CLABSI free.

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### **WEIGHING IN ON THE IMPORTANCE OF WEEKLY HEIGHTS AND WEIGHTS**

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**Category: Patient Education and Safety**

In an effort to minimize risk of error related to chemotherapy ordering, preparation and administration, focused attention has been placed on the standardization of obtaining height and weight measurement in our ambulatory infusion center. The Oncology Nursing

Society (ONS) and the American Society of Clinical Oncology (ASCO) have set standards on the quality and safety of chemotherapy administration for inpatient oncology/infusion departments and serves as a guide for creating a safe environment in our centers. ONS/ASCO 2016 Chemotherapy Administration Safety Standards state patients on active anti-cancer therapy require height and weight documentation within 7 days of treatment. Through review of our error reporting system, occurrences of inaccurate or missed heights, weights, and/or body surface area (BSA) were identified, causing dosing errors. Although safety mechanisms are in place and errors were recognized prior to administration, chance for harm still exists. According to Neuss et al. (2017), in an issued survey, 63% of chemotherapy nurses reported knowledge of medication errors. With support from our system leadership and a focus on a culture of safety, the need was identified to initiate a process improvement project focusing on height and weight attainment. Review of policies and best practices was performed and standardization of height and weight attainment developed. A Clinical Services Associate (CSA) Intake role was developed to obtain patient's height, weight, vital signs, two patient identifier verification, placement of ID bands prior to the release of treatment orders, and communication regarding delays. Select responsibilities were shifted from Triage Nurse to CSA intake role. This allotted additional time for safety checks by the Triage Nurse in confirming accurate order entry prior to pharmacy preparation. PDSA mythology was used for this test of change. Communication plan included daily huddles with staff, presentation to ambulatory medication safety committee and system leadership forums. 100% of Infusion staff completed a height and weight measurement competency. Patient communication consisted of pamphlets informing of change in wait time and workflow. Press Ganey score for "information about delays" increased 5 points from implementation of new intake process. Monthly chart audits ensure anti-cancer therapy patients have height and weight documented within 7 days of treatment. Order entry errors in error reporting system went up 66%, attributing increased use of system and employee focus on culture of safety.

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### **HUDDLE UP! MONTHLY MULTIDISCIPLINARY ROUNDS IN THE OUTPATIENT ONCOLOGY SETTING**

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Category: Coordination of Care

Patient centered multidisciplinary rounds enable care team members to offer insight and expertise for the benefit of patients. In inpatient settings, they are used in multiple levels of care, aimed to develop daily goals for every patient. The outpatient oncology setting is complex, often requiring multidisciplinary collaboration of care. The high volume and fast pace can be a barrier, limiting the ability for formal rounding to occur between care team members with each patient. Oncology infusion nurses must seek opportunities to close the gap, to come together to improve continuity of care. A suburban cancer center that exists as part of a large academic healthcare system re-designed a monthly multidisciplinary rounds model during 2019. This initiative aimed to improve patient care and communication and collaboration among the disciplines and was shown to be a contributing factor to improved levels of safety and reliability of care. All members of the multidisciplinary care team are welcomed, including but not limited to, nurses, pharmacy, physicians, nurse practitioners, front line managers, and nursing leadership. The care team meets monthly at end of day to allow better focus, eliminating the need to rush back to direct patient care. Discussion begins with new to treatment patients, important information, complex cases and any salient patient information that is appropriate for discussion among the collaborative team. There is opportunity for operational discussion; meetings have been a forum for questions, concerns and issues among the care team. Infusion nurses often rotate attendance to allow for shared participation in rounds and report back to unit on items discussed. Data to be evaluated will include targeted Press Ganey metrics for the multidisciplinary rounds meetings. Pre-intervention nursing satisfaction survey shows below benchmark scores for “Interprofessional Communication.” Reintroduction of multidisciplinary rounds aims to increase communication and collaboration among oncology care team. Much of oncology care has moved from inpatient units and occurs in the ambulatory setting, but the complexities of the disease trajectory remain. Oncology infusion nurses are a key component of the care delivery model. Multidisciplinary rounds provide opportunity for process improvement, education and

teaching opportunities, coordination of care among disciplines, clarification of patient goals and outcomes, and maintenance of a comprehensive plan of care, while improving the care team’s cohesiveness, collaboration, and communication.

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### TASTE AND SMELL CHANGES: EDUCATION FOR PATIENTS UNDERGOING CANCER TREATMENT

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Category: Symptom Management and Palliative Care

There are many resources available regarding education for oncology patients experiencing taste and smell changes while undergoing treatment for their cancer. Historically, staff has referred to Chemocare, UpToDate, Oncolink, and other reputable nutrition websites. In addition, staff were from multiple cancer specialties and clinical locations. All of these factors resulted in the utilization of a variety of resources, resulting in patients receiving different—and sometimes conflicting—information. Given the variability in patient experience related to taste and smell education, a group was created to determine which intervention would provide a consistent, quality educational experience for patients at risk of developing taste and smell changes. Oncology registered nurses (RNs) gathered the relevant, available, evidence-based resources utilized by dietitians, RNs, advanced practice RNs, physician assistants, and physicians. These resources were then consolidated into one easy-to-read document for use by allied health professionals across the cancer network. Feedback from patients, providers, and staff has been uniformly positive with the transition to the uniform, standardized education. Staff enjoy having one “source of truth” for taste and smell change-related education and providers appreciate consistent education being provided to their patients regardless of where the patient is seen. The document is an instrument to provide consistent information across our system for all disciplines to help patients undergoing cancer treatment. Other departments or organizations may wish to replicate a document similar to this to avoid confusion from patients receiving multiple different—and sometimes conflicting—resources.

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### CLINICALLY INDICATED REPLACEMENT VERSUS ROUTINE REPLACEMENT OF PERIPHERALLY INTRAVENOUS CATHETERS:

## REVIEW, RECOMMENDATIONS, AND POLICY CHANGE

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Category: Oncology Nursing Practice

Many institutions rotate peripheral intravenous catheter (PIV) sites every 48–96 hours, whether clinically indicated or not. In oncology in particular, PIV access is often both necessary and difficult to obtain, due to diagnosis, comorbidities, treatments, etc. Often, rotation will be attempted but a second PIV is unable to be obtained. Thus, the original PIV remains in place, the patient suffers unnecessarily, and staff time and supplies have been wasted. The review was to answer: “Is it necessary to rotate PIV sites based on dwell time, or can they safely remain in place until removal is clinically indicated?” Secondary purposes were to make recommendations to the author’s institution regarding PIV rotation, to lead institutional policy change regarding the recommendations, and to disseminate findings to the oncology community. A literature search of medical databases using terms like “catheter”/“cannula,” “removal”/“replacement,” netted 228 results, 10 of which were included in the review. Overall quality of the articles was high, Levels 1 and 2. For phlebitis, infection, occlusion, and infiltration, there was no significant difference in incidence between PIVs that were rotated routinely, and those rotated clinically. The author presented these findings to the institution, and requested hospital policy be changed to reflect the evidence. The new policy is in its final stages at the time of abstract submission. Patients and staff on the inpatient oncology unit were given pre-intervention surveys based on discomfort, time spent, and supplies utilized, which showed general dissatisfaction with routine rotation. A post-survey will be conducted after the new policy has been implemented. Rotating PIVs based on clinical indication is safe and effective, and can cut costs directly by cutting down on supplies used, and indirectly by saving staff time. Most importantly, this decreases patients’ exposure to infection and discomfort with each unsuccessful and unnecessary stick. The author urges others to bring the evidence back to their places of work, to continue the change. Much of the available literature spans a decade. However, there is a recent push to translate this evidence into practice. Shortly following the author’s completed review, the ANA published a similar article in their journal. This is innovation of the translational kind—what use is evidence if it is not used to effect positive change?

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## SMILE! CAPTURING SATISFACTION AND SAFETY ONE PICTURE AT A TIME

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Category: Patient Education and Safety

Ambulatory centers have a high volume of patients who are often times accompanied by a support person. If the patient is coming for a long term follow up or if the patient needs to be identified quickly for treatment, their face may not be familiar to staff. This can lead to staff and patient dissatisfaction as well as pose safety concerns. Baylor Scott and White Vasicek Cancer Treatment Center (BSWVCTC) can have over 250 patients who receive care on a daily basis. Registered nurses (RN) cover each other and the RN covering may not recognize a patient based on only a name and date of birth. This can lead to dissatisfaction for staff and the patient as they may feel as if they are not important. Furthermore, it poses a safety concern during urgent situations when needing to locate a patient quickly. Lack of utilization of the electronic medical record (EMR) was identified as the barrier to the process. Once determined pictures could be uploaded into our EMR, portable cameras were ordered and education was provided to the certified medical assistants (CMA) on how to upload photos to a patient’s EMR. The CMAs incorporated capturing patients’ photos into their script and clinical intake process. This allows every care provider to view the patient’s photo while in his or her EMR. BSWHVCTC staff assessed outcomes by measuring the number of pictures that were captured on a daily basis. The percentage of patient photos in the EMR increased from 20% to approximately 65%. In addition, RNs, CMAs and providers agreed having patient photos in the EMR has helped in identifying patients tremendously. Obtaining patient photos for the EMR allows for easier patient identification. Implementing this process can improve satisfaction for both staff and patients. The picture allows staff to recognize the patient and address him/her directly. This process can also impact patient safety in critical situations; when interventions need to be acted upon urgently, the medical staff is able to quickly identify patients with their photo in the EMR.

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## PARENTERAL INJECTIONS: GIVE IT YOUR BEST SHOT!

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Category: Oncology Nursing Practice

Infusion suite nursing staff administer parental injections to patients daily. Anecdotal reports, from patients and colleagues revealed inconsistent mixing and administering of medications. Review of patient safety reports did not identify any improper mixing or administration of medications. Most new staff did not have experience with these parental medications. Orientation to the administration of parental injections was completed during orientation but detailed documentation of instruction was lacking. The purpose of this project was to identify current practice and knowledge among nursing staff regarding mixing and administering parental injections to oncology patients. Once the knowledge of the nursing staff was identified the purpose was to provide education to standardize injections, including mixing, administration and site selection, with the long-term goal of consistent medication administration by all staff. To obtain a baseline of staff nurse knowledge, all staff nurses were given a 10-item survey. Results showed that staff nurses answered 58% of the questions correctly. Knowledge gaps were identified as areas in need of the most focus. A team of nurses reviewed the literature, institution policies and procedures. Interventions to improve knowledge and medication administration included: (a) Medication in-service presented by staff nurses in which 90% of the nursing staff attended, (b) adding the specific detail of each medication to the orientation checklist, (c) increasing the number of consecutive days, a new staff member administered the injections, (d) development of Quick Reference cards for each medication which are kept at the chair side as a reference, and (e) pharmaceutical representative providing in-service on medication administration and trouble shooting. After implementation of interventions the same survey was administered to staff nurses. The percent of correct answers improved from 58% to 93% showing a significant improvement in the knowledge of the staff. When new injectional medications are introduced education is again provided to the staff and a Quick Reference card created for staff. New staff are provided with consistent time administering parental injections. What started as a few comments from patients and staff evolved into a quality improvement project to standardize

the mixing and administration of medication. This resulted in staff receiving standard instruction, patients receiving injections consistently each time and continued monitoring of practices. The Quick Reference cards ensure ongoing hands on information for staff.

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## PARENTERAL INJECTIONS

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implementation of interventions the same survey was administered to staff nurses. The percent of correct answers improved from 58% to 93% showing a significant improvement in the knowledge of the staff. When new injectational medications are introduced education is again provided to the staff and a Quick Reference card created for staff. New staff are provided with extensive time administering parental injections. What started as a few comments from patients and staff evolved into a quality improvement project to standardize the mixing and administration of medication. This resulted in staff receiving standard instruction, patients receiving injections consistently each time and continued monitoring of practices. The Quick Reference cards ensure ongoing hands on information for staff.

## 166 EFFECTIVENESS OF POST RADIATION PHONE CALLS IN THE BREAST CANCER POPULATION

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Category: Oncology Nursing Practice

Acute radiation toxicity often peaks towards the end of radiation course or shortly after the completion. For breast cancer patients, the common side effects are skin related symptoms such as moist desquamation, burning sensation, and pruritus. At many institutions, patients are seen on the last day of radiation and again one month after completion. As such, they are not seen during the period of peak radiation toxicity. This quality initiative study was designed to measure the effectiveness of a 1-week post-radiation phone call and its correlation to overall patient's satisfaction by offering education and/or interventions during the period of peak symptomatology. The first phase was a 3-month data collection- number of patient calling the department with side effects prior to the 1-month follow up visit. The second phase consisted of a post-radiation phone call to 20 random selected patients within 7 days of completion. During the call, patients' symptoms were managed with the collaboration of the medical team. Telephone encounters were documented in EMR with interventions provided, making it readily available to be viewed by the oncology team. At the 1-month follow up visit, those

20 patients were given a post call survey to measure the patients' satisfaction. In the first phase, 23 patients called within 1-week of radiation completion. In the second phase, 20 patients were contacted and reeducated on skin care/radiation side effects. The post call survey, done at 1-month follow up, revealed that 75% of patients felt confident regarding radiation expected side effects prior to the call. The confidence level increased to 99% after the phone call. Statistic also showed that 94% of patients felt that the nurses assisted them in managing their skin reactions during call. Moreover, 96% of patients noted a better sense of communication with their radiation team after the phone call. After this implementation, the number of calls received by the breast cancer patients decreased from 23 to 4 calls within the following 3 months. This quality initiative study supports that a 1-week post radiation phone call is an effective intervention to manage patient side effects by offering interventions during the toxicity peak phase. In addition, the post radiation call led to higher patient satisfaction.

## 171 DEXAMETHASONE USE TO PREVENT PACLITAXEL HYPERSENSITIVITY REACTIONS

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Category: Oncology Nursing Practice

Hypersensitivity reactions (HSR) can be part of the patient experience when receiving paclitaxel. In our clinical setting, the nursing staff raised concerns about a perceived increase in HSR. A literature search was initiated as a direct result of infusion concerns and to ascertain if the route of dexamethasone administration, either orally or intravenous, is superior in preventing HSR. Literature review was performed with 101 articles identified possibly meeting the criteria. Clinical analysis was performed on twelve articles. The analysis indicated the majority of data regarding the problem were dated from 1990 to 2017 with the preponderance of the information from 2001-2004. Multiple institutions performed prospective reviews with others performing case controlled studies. Each study had their own opinion or evidence whether oral or intravenous were better at preventing HSR. Two articles state they changed their practice from routine intravenous dexamethasone to oral routinely based on their research. Two other studies indicate it is safe to administer dexamethasone intravenously without an increase in HSR. While there was no consensus from the articles regarding which route of administration is superior to the other, protocols and order sets



should be centered on consistent and best practices for the route of administration for each individual and the patient population receiving paclitaxel. New research is needed to answer the concerns of nurses and patients regarding HSR prevention. This evidence has prompted changes with our nurse documentation in order to identify and clarify the type of symptom the patient is experiencing. This data will expand definitions in our current procedure to ensure the type of reaction is ascertained and acted upon. This information will be analyzed to strengthen the evidence for a potential change in the use of intravenous dexamethasone compared to oral dexamethasone as premedication for Paclitaxel infusions.

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### **TWO RN SKIN ASSESSMENT**

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*Category: Oncology Nursing Practice*

Hospital Acquired Pressure Injuries (HAPI) are a distressing issue; influencing the patient's outcome, care, and treatment. A skin assessment performed by two registered nurses (RNs) at the patient's admission to the unit increases accountability and promotes a timely skin assessment. Current inpatient policy includes conducting pressure injury measurements weekly, on admission, and on transfer to the unit. A significant number of pressure injuries are misidentified or missed on documentation during these opportunities. This project aimed to increase RN confidence in pressure injury identification, staging, and documentation while utilizing a two RN assessment technique. Additionally, this project reinforced RN knowledge of the current hospital policy for pressure injury treatment, and documentation. RNs' confidence with skin assessment was assessed by administering a six question Likert scale pre intervention survey. Interventions included educational in-services derived from hospital policy provided to RNs during huddle. A messaging system was established for every patient admission to the unit with a Braden score <18. This would alert the second RN to assist the primary RN with assessing the patient's skin on arrival. The six question Likert scale survey was administered post interventions to assess RN confidence after the education. Nurses (n=24) were given a pre-survey and were asked to rank their confidence in their skin assessment skills, knowledge, and collaboration. Data demonstrated only 20% of the surveyed RNs felt confident staging and identifying pressure

injuries, while 83% felt confident asking for a second opinion. The results of the pre-survey prompted our implementation of a two RN skin assessment for all newly admitted or transferred patients with a Braden score < 18. The survey was given to RNs (n = 11) after the interventions and preliminary results demonstrated 45% felt confident staging and identifying HAPI in the presence of a second RN. Two RN skin assessment encourages accountability and timeliness when evaluating high risk patients. Educating RNs on proper skin assessments for pressure injuries will improve documentation and patient safety. The two RN skin assessment allows for earlier determination of skin impairment. It validates each RN's assessment skills and allows for improvement through peer review. Furthermore, this improves patient outcomes and reduces missed opportunities for early intervention and proper treatment.

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### **TRANSITIONS OF CARE IN THE ONCOLOGY POPULATION: IMPROVING COMMUNICATION BETWEEN AMBULATORY AND EMERGENCY DEPARTMENT SETTINGS**

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*Category: Coordination of Care*

62% of oncology patients transferred from an ambulatory Infusion Center (IC) setting to the Emergency Department (ED) for systemic inflammatory response syndrome (SIRS) or sepsis evaluation have avoidable, duplicate laboratory tests performed such as blood cultures, lactate, and/or urine cultures. After collaborating with the ED staff and reviewing the triage/intake process, it was observed there was a lack of effective communication between the IC and the ED on status of intervention completion in workup process. Improvement in communication could reduce duplication of laboratory tests that have already been performed. In turn, this could reduce cost in supplies and nursing time while improving time to start of intravenous antibiotics and fluid resuscitation for those patients who meet criteria for sepsis. To streamline the communication on interventions performed, IC Advanced Practice Providers (APPs) will: (a) Create a separate note in the electronic health record (EHR) that lists the site and draw time of blood cultures, lactate, urine culture and/or any additional interventions performed in the IC prior to transfer to the ED. (b) Print the note and physically present it to the triage nurse in the ED at the time

of patient transfer. Outcomes will be measured using a chart review to evaluate the number of patients who underwent duplicate intervention after being transferred to the ED for SIRS/sepsis evaluation. The evaluation period shall be no less than three months. Comparing post-implementation data to pre-implementation data should reveal a decrease in the number of repeat interventions performed as there should be improvement in communication between departments. Suggestions for sustainable practice include providing quarterly updates to the ED and IC staff to ensure continuity of this new process. The IC APPs will remain engaged and continue to evaluate potential needs for process improvements in applicable departments throughout the health system. After standardizing this process, responsibility of the communication process will extend to the primary IC nurse. Innovation emerges within optimal use of current tools and resources; the documentation in the EHR and handing over of a physical note alerts the ED staff that interventions have already been performed and do not need to be repeated. Improving communication between the referring and receiving departments can decrease duplicate interventions and decrease costs.

### 183 ENHANCING INTERPROFESSIONAL COLLABORATION ON AN INPATIENT ONCOLOGY UNIT

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Category: Coordination of Care

Interprofessional collaboration has been found to enhance clinical outcomes and decrease medication errors, length of stay, cost per stay, readmission rates, and hospital-acquired infections. The 2018 Oncology Workforce Engagement Survey provided evidence that “physician and staff work well together” was an area of concern for this inpatient oncology unit. The purpose was to determine how using Vocera, a telecommunication device, impacts nurse presence, attendance, and collaboration on rounds. The interventions utilized in this project involved nurse notification of rounds via Vocera by the medical team, education on collaborative practice, and enlightening the medical and nursing team on the importance of nurses actively engaging in rounds. Staff perceptions of interprofessional collaboration were measured

using an interprofessional collaboration survey and patient rounds were observed pre- and post-intervention. Notification of patient rounds by the oncology teams (E1, E2, E3) went from 4% to 94%, while nurse attendance at rounds went from 40% to 67%. Results from the interprofessional collaboration survey demonstrated improved collaboration, communication, shared decision making, respect for team members concerns while making patient care decisions, and cooperation. Results support the use of telecommunication systems and interprofessional education as a tool to improve interprofessional collaboration and nurse presence at rounds.

### 184 UTILIZING CLOUD-BASED TECHNOLOGY TO TRACK VALUE-BASED CARE IN AN OUTPATIENT ONCOLOGY INFUSION PRACTICE

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Category: Coordination of Care

Oncology care is complex and multi-faceted, becoming more value-based. This abstract pertains to a project at a multi-office private Oncology infusion practice that is growing. The challenge is to closely monitor patients and track any issues that might develop throughout the care continuum. A crucial need was identified to develop a central and simple way to report and track care as patients may tell important information to any team member. Hospital admission and discharges, hospice transitions, and patient loss were the first events tracked. Originally, these changes in patient condition were reported to a central team using an email distribution list. As the practice grew, emails proved inefficient. If events were reported at all, essential details were often excluded. Investigating each instance became an impossible task and metrics were not as meticulously maintained. The first operation of the cloud-based tracking program is in the form of a website introduced to staff. When the link is clicked, a simple form appears and staff are prompted to complete the details. The site is accessible from any browser and does not require login information. Submissions are sent to a tracking team for processing into the electronic medical record (EMR) and the provider receives an email notification with the patient specifics. Data regarding emergency room visits, admission length, and oncologic emergencies are tracked with ease. After a successful launch, the program expanded to tracking patient complaints,

new patients eligible for value-based care programs, and clinical incidents and variances. This has allowed the practice to quickly identify and remedy issues. Communication is streamlined to a central database that is separate from the EMR. The tracking system is widely adopted throughout the practice due to its ease of use and accessibility. Real time data is organized and collected through the reporting system, which has impacted patient care positively. Issues are escalated to administration for immediate processing. Nurses are notified and can efficiently advocate for patients by identifying what care is needed.

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### IMPROVING ACCESS FOR PATIENTS WITH A SUSPECTED OR NEW DIAGNOSIS OF CANCER

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*Category: Coordination of Care*

Nurse navigation has been shown to be beneficial to both patients and healthcare systems. An essential function of the Nurse Navigator is to facilitate transitions through diagnosis, treatment, survivorship, and end-of-life. Patients undergoing diagnostic testing to confirm a potential cancer diagnosis are often concerned, anxious and frustrated. Scheduling appointments with an Oncologist prior to completion may be equally frustrating since the treatment plan cannot be fully established. While evaluating our Oncology Department practices, we determined there was an opportunity for improving the experience of suspected or newly diagnosed cancer patient to provide earlier access to our department, ensure that diagnostic test results were available prior to the initial specialist appointment, and offer information with support to patients. The objectives for this project were to 1) clarify and standardize the expectations of the Oncology Nurse Navigator role for suspected or newly diagnosed cancer patients; 2) develop a consistent workflow and intake documentation template; 3) and improve timeliness of initial patient access into the department. Initial steps for this project involved bringing all department stakeholders (i.e. Oncologists, Oncology CNS, Nurse Navigators) to define goals, potential challenges and key elements (e.g. education, standards, resources) required for implementation. A consult was established for patients to have a telephone appointment with the Oncology

Nurse Navigator within three business days. Algorithms, based on NCCN guidelines, were developed to delineate any diagnostic tests that could be required depending upon specific cancers. A process was then developed for a Navigator to review each consult and present the case to an Oncologist prior to the telephone visit. Standing orders were developed in order to facilitate the nurse navigator's ability to order any required diagnostic tests. A template was also developed to standardize documentation of the patient visit and elicit information indicating the need for key referrals (e.g. social worker, nutritionist, palliative care). After implementation of this workflow, patient access has improved as telephone visits are often initiated within one to three business days of the consult. With appropriate diagnostic tests completed prior to the specialist appointment, treatment plans can be initiated sooner. Effective utilization of Nurse Navigators improves patient access for patients with cancer. Continual process improvement will provide greater efficiency and quality care for the patient.

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### IMPLEMENTATION OF A PATIENT ACUITY TOOL TO DEVELOP AN EFFICIENT INFUSION CENTER NURSING ASSIGNMENT MODEL

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*Category: Oncology Nursing Practice*

At a National Cancer Institute designated Comprehensive Cancer Center's outpatient Infusion Center (IC), nurse (RN) staffing decisions for a 52-chair facility have been challenging secondary to high patient volumes (113 patient treatments/day) and acuity. The historic staffing model (1:6 nurse: patient ratio) did not factor in patient acuity, leading to imbalanced assignments. As a result, IC RNs voiced concerns about the impact of this imbalance on patient safety, operational efficiency, and job satisfaction. The purpose of this IC project was to successfully implement an evidence-based Patient Acuity Tool (PAT) to establish a fair and balanced IC nurse assignment model. A previously published PAT (which used length of treatment to assign acuity) was utilized by an IC RN-based team to appropriately score more than 300 treatment regimens. An overall acuity score of 22 was designated as an appropriate cutoff for daily RN assignments based on an increase in surveyed RN dissatisfaction and missed breaks at an acuity of 23 and above. Prior to implementation, IC RNs completed a pre-evaluation survey and received 1:1 education about the PAT. At least one day prior, the IC charge RN totaled daily acuity scores to assist RN

staffing for the following day. During the IC day, the IC team leads assigned patients to establish balanced RN assignments. Prior to the PAT pilot, 39 (80%) of surveyed IC RNs (n = 49) reported dissatisfaction regarding imbalanced assignments compared to a 21% dissatisfaction rating (n=14) in the post-pilot assessment. 20% of surveyed RNs (n = 25) received their lunch on time for 50% of their shifts in the pre-PAT pilot compared to 79% of surveyed RNs (n = 14) in the post-pilot assessment. Fifty-two percent of acuities/ chair times were entered incorrectly in the pre-PAT pilot as compared to 26% inaccuracy in the post-pilot assessment, promoting chair turnover efficiency and appropriate staffing guidelines. PAT implementation in the IC led to a revised RN staff assignment model, which has resulted in improved nursing satisfaction and operational workflow. The new IC nursing model, using the pilot PAT, may serve as a template for other ICs struggling to appropriately match RN staffing to meet high acuity and high patient volumes.

## 221 IDENTIFYING INTERDEPARTMENTAL COMMUNICATION GAPS IN A GROWING PRIVATE PRACTICE

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Category: Coordination of Care

Optimizing interdepartmental communication and coordination of care in a community based, private oncology practice with multiple locations can be difficult. Disruptions and misunderstandings cause frustration and delay for both patients and staff. Growth of the practice led to the development of multi-member, multi-tiered departments. Points of intersect throughout the patient care journey are opportunities for communication to shine or shut down. Clinic nurses are the main contact for all players involved in the patients' care and are in prime position to facilitate increased positive communication outcomes. A notable hindrance to interdepartmental cooperation is knowing who is responsible for what. This gap in knowledge contributes to time spent navigating the patient from person to person or nursing staff calling multiple departments in an attempt to help. This leaves the patient with concerns regarding quality of care and misplaced blame. For example, the number of in-house retail pharmacies has grown from one location to three. Knowing which in-house retail pharmacy is assigned to each clinic decreases delays in care caused by

nurses communicating with multiple pharmacy staff to ensure patient medications and related needs or concerns are properly directed. Awareness of the tools available to each department develops an understanding of where information should be placed for each audience. Knowing that all staff have access to the electronic medical record (EMR) system gives the pharmacy the capability to document a communication note in a location in which anyone who answers the patient's call will be able to direct them to the appropriate extension. A gap in knowledge also exists in understanding realistic turnaround times. If a nurse is able to give the patient an accurate estimation of the time a task will take, the patient will have a more realistic expectation and have increased confidence in the care they are receiving. Steps to disseminate information practice wide have been taken by developing an intranet system that is accessible to anyone in the practice. However; concerns regarding accessibility, ease of use, and staff investment have limited its efficacy. Ongoing improvements upon this existing effort, along with the brainstorming of additional interventions for bridging knowledge gaps, will lead to improved interdepartmental collaboration, staff morale, and patient satisfaction.

## 222 THE INFLUENCE OF A DISCHARGE NURSE IN PATIENT OUTCOMES AND STREAMLINING THE DISCHARGE PROCESS

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Category: Coordination of Care

Huntsman Cancer Hospital is a NCI designated Comprehensive Cancer Center at the University of Utah with 100 inpatient beds. The Medical Oncology Unit (25 bed unit) has seen an increase of discharges over the years, with an average of 6 discharges occurring daily Monday-Saturday. Discharges have become increasingly complex, requiring coordination between multiple disciplines. In the 6 months prior to intervention, 47% of discharges required case management intervention. A successful discharge requires coordination with nursing, case management, pharmacy, and providers as well as complex patient education. Prior to intervention, the average time between written

discharge orders and a patient leaving the unit was 368 minutes. Delayed discharge times impact admission wait time for scheduled chemotherapy and acutely ill oncology patients, with an average wait time for bed assignment of 262 minutes. The increasing challenges and complications with inpatient oncology discharges has impacted staff and patient satisfaction. Staff are under pressure to complete discharges as quickly as possible and accept new admissions resulting in missed lunches, overtime, and important parts of the discharge potentially being overlooked. The goals were to decrease the time between discharge order and discharge time, improve the time of discharge, improve wait times for admissions, provide a safe discharge, and improve staff and patient satisfaction. A dedicated Discharge Nurse position was created to serve as a multidisciplinary coordinator, working with case management, pharmacy, and providers to ensure that all patient needs were addressed as well as provide comprehensive teaching and follow-up instruction to discharging patients. Monthly reports were run to monitor time of discharge, percentage of discharges before 2 pm, patient surveys to measure patient perception of their discharge experience, impact on payroll, and wait time for bed assignment. Pre- and post intervention surveys of staff were done to measure staff satisfaction with the discharge nurse process. Following the initial two month trial of a discharge nurse position, additional FTE was budgeted to allow for a discharge nurse five days/week. Six months after implementation of the discharge nurse position we have adjusted the role based on continual review of feedback and data. Discharge times have improved, the time from a bed request for admission to bed assignment has decreased, missed lunches and late outs have improved, and staff satisfaction has improved.

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### **FACTORS AFFECTING PATIENT SAFETY PERCEPTION AND PATIENT PARTICIPATION OF CANCER PATIENTS IN SOUTH KOREA**

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Category: Patient Education and Safety

Patients' symptom reports and information may influence decision-making for treatment, and patient participation is critical to the outcome. This study was to identify factors affecting patient safety perception and patient participation and to provide basic data for the development of patient participation education programs. The subjects of this study were 183

patients with at least one experience of the hematology or oncology departments at a tertiary hospital in Seoul. Data were collected from April 11, 2019 to May 7, 2019 using a structured questionnaires including patient safety perception and patient participation. The patient safety perception score was  $4.23 \pm 0.48$  out of 5 points. The patient participation score was  $4.30 \pm 0.53$  out of 5 points. The factors affecting patient safety practices were patient age and experience of patient participation education. It was found that safety perception was higher with younger patients ( $\beta = -.19, p = .046$ ) and with experience of patient participation education ( $\beta = .20, p = .007$ ). The factors affecting behavioral participation in general situations were the level of education, experience of hospitalization and experience of surgical procedures. It was found that participation increases when patients are graduates from college or higher ( $\beta = .16, p = .042$ ), when they are in hospital for the first time ( $\beta = .18, p = .025$ ) and when they have experience of surgical procedures ( $\beta = .21, p = .010$ ). The factors affecting emotional participation were level of education and experience of hospitalization. It was found that participation increases when patients have graduated from college or higher ( $\beta = .16, p = .046$ ) and when they are in hospital for the first time ( $\beta = .19, p = .018$ ). It is necessary to improve the system for medical staff, patients and medical institutions in order to enable patients to communicate with medical staff in a satisfactory manner and participate in patient safety activities. The development of systematic and structured education programs should take into account patients' level of education, age, employment status, hospitalization experience, medical department, experience of surgical procedures, and experience of patient participation education.

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### **DEVELOPING A MOCK CODE TRAINING PROGRAM IN PHASE I RESEARCH UNIT**

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Category: Professional Development

The literature suggests that practice simulation sessions for mock code scenarios can improve staff confidence in emergency situations resulting in improved outcomes. Due to an increasing volume of phase I study patients in our research infusion area, the risk of an emergency situation arising increases as we continue to administer investigational agents. Under-utilization of ACLS skills identified the need to enhance nursing staff confidence in emergency

situations. Our goal was to provide the tools needed for the research team to effectively handle an emergency situation by developing a structured Mock Code Training Program. Need was identified: Pre-survey identified 100% of the core research team wished to participate in routine mock code sessions. Literature indicates that staff confidence in emergency situations results in improved patient outcomes. Process: Identified team of educators who could facilitate training/education sessions (nurse educator, infusion nurse with prior EMT experience, clinical research specialist). Pre-training program survey was administered to identify knowledge gaps. Obtained needed equipment for training and practice sessions (i.e. Zoll defibrillator, crash cart). Developed six structured training sessions. Participants in Training Program demonstrate and articulate correct intervention in various code situations. Able to use the defibrillator without difficulty. Articulated knowledge of crash cart contents and use. Daily assignments include delineation of roles in the event of an emergency. Routine practice sessions have been initiated. Post-treatment survey administered to identify knowledge gained through the Mock Code Training Program. Nursing Leadership support is key in initiating and maintaining this program: Provided RN time off to obtain/maintain ACLS training. Supported incorporation of training sessions into the workday, usually at the start of the shift. Pre/Post surveys are needed to evaluate the success of the program. Innovation: Identify ways to maintain momentum to keep routine mock code sessions going and train new team members. May be used as a springboard to solidify RRT team in the outpatient cancer center. Consider including clinical research staff (RNs/NPs) in monthly mock code sessions. Review and revise current standards of practice. Ensure all staff maintains current ACLS certification.

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### **BALANCING TOOL: EMPOWERING NURSES TO EFFICIENTLY AND EVENLY DISTRIBUTE PATIENT ASSIGNMENTS IN AN AMBULATORY CHEMOTHERAPY UNIT**

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Category: Oncology Nursing Practice

Incorporating nursing autonomy into a unit action plan dedicated to increasing nurse satisfaction and patient safety prompted discussion on the implementation of a standardized tool to equally distribute complex patient care assignments in the ambulatory chemotherapy unit.

A unit survey was conducted and showed the nursing team was passionate about distributing patient assignments fairly and also revealed nurse dissatisfaction with the current process. The majority of staff agreed the team would feel empowered from exploring and developing an innovative patient allocation process. A review of evidence-based literature demonstrated the use of a balancing tool, also known as an acuity system, would distribute the workload equally amongst smaller patient care teams. The purpose of this project was to develop a balancing tool to assist nurse navigators with the distribution of patient care assignments in order to create a safe environment for patient care and increase nurse satisfaction. A review of evidence-based literature on outpatient acuity guidelines was performed to design and implement a balancing tool template. The template was built into two separate components. First, key patient considerations and length of infusion were accounted for to determine the level of care needed. Next, the designed template provided a clear direction for nurse navigators to guide them in distribution of patient care assignments. The team identified six super users to systematically train staff members how to use the template. A three month post-survey showed nursing satisfaction with patient care distribution increased from 42% to 100% with the implementation of the balancing tool. Ninety-five percent of nurse navigators reported a clear understanding of balancing tool utilization. Additionally, 100% of staff supported the continuation of using the template. Following the implementation of a balancing tool in the chemotherapy unit, the process of distributing patient assignments has shown positive impact on the unit. The balancing tool is continually evolving and being refined based on staff feedback. The team routinely updates the template in order to ensure it stays up-to-date on new medication regimens and reviews it for ease of use. The balancing tool impacts every nurse on the unit and has become a crucial component for empowering nursing autonomy and maintaining patient safety. Innovation: Research on acuity systems in an out patient setting.

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### **DAILY ACTIONS FOR SUCCESS HUDDLE: CREATING A CULTURE OF PROCESS IMPROVEMENT AT THE UNIT LEVEL**

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**Category: Oncology Nursing Practice**

Hospital wide process improvement projects focus on areas such as length of stay and discharge time; for an outpatient cancer center, not all of these apply. Implementing a Daily Actions for Success Huddle (DASH) allows the multidisciplinary team to identify areas where process improvement is needed and make the necessary changes. During these daily huddles the pharmacists, nurses and physicians collaborates to identify areas of waste using the Lean DOWNTIME Methodology. The goal is to improve the health of the population, the experience of care, and reduce costs. Once an area of improvement is identified and a new process improvement is started, staff are able to visualize the outcomes of the new process in a measurable way. During the huddles, current concerns are coded as actively being worked on, needs a team developed to resolve, or requires outside assistance for improving. The huddles are fifteen minutes in length with a representative as a timekeeper. A real-time graph is kept up to date on the issues that are actively being worked on. Once the issue is resolved through an improvement initiative, it is taken down and retired to a binder, which can be referenced during visits from regulatory bodies. The outpatient team has had these huddles for two months. The issues identified have been the check in process, ensuring lunch breaks occur, having a type and screen available, checking for order completion, and wheelchair availability. In this short time, two issues have been resolved and one has been escalated to the hospital level. At each huddle approximately sixty percent of staff participate, including a designated provider. On evaluation, feedback from staff has been extremely positive. Nursing staff feel that they have a voice and the support of the multidisciplinary team to make the changes they feel are needed. Process improvement is a process, while continuous improvement is a culture. Daily Actions for Success Huddles create a forum for team members to speak up about issues they identify and put steps in place to address these concerns. By identifying areas of improvement specific to their unit, staff are able to own the work they do every day and see how their daily performance translates into improved care for their patients.

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### **SCREENING FOR CLOSTRIDIUM DIFFICILE IN THE BLOOD AND MARROW TRANSPLANT POPULATION**

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**Category: Oncology Nursing Practice**

Patients admitted for a blood and marrow transplant (BMT) are immunocompromised and have typically had multiple previous admissions. These factors make them at high risk of developing active *Clostridium difficile* (C diff) infection as well as potentially being colonized with it. Due to these factors, our BMT unit had the highest rate of hospital-acquired C diff infections in our entire tertiary care health system. Evidence about asymptomatic colonization suggested there may be a role for testing these patients upon admission. However, when screening was initially proposed nearly 5 years prior, it was found there was not a lab test proven for screening purposes. In 2015, we conducted a study to show our current PCR test is an effective screening tool for formed stool. Based upon these study results combined with other evidence found in the literature, our BMT program developed an evidence-based guideline for screening all hematology patients admitted to the BMT unit. It outlines the process for screening formed stool any time during the first 3 days of hospitalization. The guideline also incorporates empiric and symptomatic antibiotic treatment of patients with C diff colonization and infection, as well as direction for when to re-test patients who initially test negative but then develop diarrhea. Within the first 6 months of screening all hematology and bone marrow transplant patients admitted to the 36-bed unit, 57 patients (approximately 17%) screened positive. These are patients whose positive cultures could potentially have been counted as hospital-acquired infections if tested when they developed chemotherapy-induced diarrhea greater than 3 days after admission. The rate of hospital-acquired C diff infections for those same 6 months decreased by 58% as compared to the 6 months prior to implementation. These are statistics never previously noted despite other multi-departmental quality improvement initiatives. The guideline, and the results it has produced, has garnered interest from other units within our organization who serve similar oncologic populations.

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### **INCORPORATING THE CLINICAL RESEARCH NURSE (CRN) IN A STRUCTURED WORKFLOW PROCESS: ENHANCING CRN VISIBILITY**

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**Category: Coordination of Care**

Initially, a standardized procedure to formally identify the role of the research nurse, explain the importance

of the research nurse visit and facilitate interdepartmental communication within the practice did not exist at our center. As a result, unnecessary miscommunication between the office and research staff often occurred as research nurses were not as easily identified and visible in our computer appointment scheduling system and EMR as other more traditional healthcare providers. The Northwell Health Cancer Institute Research Department piloted a performance improvement project to improve interdepartmental communication and enhance the visibility of the clinical research nurse's contributions at the Monter Cancer Center. A nurse visit appointment code (HEMONCFAMRES) was created and incorporated into both, Sorian, the patient appointment scheduling program and ALLSCRIPTS EMR to: (a) Facilitate interdepartmental communication related to the arrival of research patients, (b) establish a standardized process whereby research patients are easily identified during the arrival process and the CRN/ CRC are notified, (c) optimize utilization of our existing scheduling/EMR systems to implement a new workflow process including research patient reminder alerts for office staff, and (d) provide quantifiable data related to study related encounters involving clinical research nurses. Since the implementation of the new workflow process in 2017, the number of HEMONCFAMRES nurse visits scheduled has increased from 62 in 2017, 376 in 2018 and 607 in 2019 thus far. The research staff also has a dedicated phone extension via spectra link to facilitate rapid notification of a research patient's arrival. In January of 2018, a second code (HEMONCFAMPHASE1) was implemented to differentiate our phase I clinical trial nurse visits from the phase II and III visits. In 2018 there were 124 visits reported for the HEMONCFAMPHASE1 code as of 9/6/19 92 visits have been reported.

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### IMPROVING DOCUMENTATION OF SEPSIS SCREENING AND CAUTI INTERVENTIONS

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Category: Oncology Nursing Practice

Prevention of health care associated conditions and early recognition of sepsis are important factors for nurses to consider when caring for oncology patients. In order to effectively prevent these conditions, nurses need to appropriately screen, take action and document. On an inpatient oncology unit at a large academic medical center, opportunities

for improved documentation were noted related to catheter-associated urinary tract infection (CAUTI) bundle interventions and sepsis screening. The goal of this project is to increase awareness and documentation of CAUTI prevention interventions and sepsis screening. Performing peer audits is valuable to assess overall effectiveness of practices and protocols and can identify areas for improved performance. A committee comprised of staff nurses evaluated sepsis screening and CAUTI bundle documentation. In order to track the efficacy of initiating and maintaining audit data, a two-step process was identified. The first three months of data was performed without nurses' knowledge of the auditing process. The next three months will be performed after the unit staff are aware of the auditing process. The audits are structured to evaluate documentation with necessary screening and CAUTI prevention measures. Once the six-month data collection process is complete, the data will be entered into a health care software platform for analysis. This data will be shared at unit meetings so all nurses will be aware of the unit compliance to then build recommendations for improvement. The formalized audit process began in summer of 2019. The preliminary results note that sepsis screening is completed 77% of the time and CAUTI bundle documentation is at 75%. Data collection continues monthly and further results are pending. It is imperative that nurses are involved with these processes as this impacts practice and care of oncology patients. Having frontline staff complete the audits and disseminate results to their colleagues creates an environment of accountability and peer support. Unit nurses need to be involved to help improve their practice. By creating this culture of support, nurses on our unit take a team approach to create initiatives and collaborate to make improvements.

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### AN EVALUATION OF HAND HYGIENE INTERVENTIONS IN THE CELLULAR THERAPY OUTPATIENT SETTING: OLD THEORY OR/AND NEW TRICKS?

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Category: Oncology Nursing Practice

During the first half of FY2019, hand hygiene compliance in the outpatient (ABMT) center fell from



a target performance above 90% to below target performance of 90%. The Joint Commission requirements specify  $\geq 90\%$  compliance for hand hygiene. This outpatient ABMT center treats patients from the conditioning regimen, through stem cell infusion, and supportive care during recovery. The center treatment area offers a variety of settings including private rooms, as well as a large open treatment area with privacy curtains. Typically, at other transplant centers, this process is completed on an inpatient unit. The purpose of this project was to provide consistent excellent hand hygiene practices in a single clinic with multiple patient care designs. A multi-disciplinary team was formed to determine the root cause of the fall in hand hygiene scores. The clinical team, with our infection prevention office, assessed the causes of the decrease in hand hygiene compliance. Using the fishbone method for cause and effect analysis, the following was determined: Current processes do not ensure consistent and continuous education for staff regarding hand hygiene importance and its associated impact on patient outcomes. This led to a lack of awareness and decreased compliance. Other factors identified included volume and acuity of patient as stressors in the workplace. Opportunities identified included: (a) Updated staff education by infection prevention team regarding the patient care threshold, (b) peer engagement and support through daily safety huddles and displayed hand hygiene education, (c) alterations to nursing assignments/schedule were made to better distribute patient acuity, and (d) collaboration with environmental services and infection prevention increasing availability of hand hygiene supplies. Hand hygiene compliance in the outpatient Adult BMT Clinic has been consistently above 95% since implementation of these changes. Consistent compliance with hand hygiene is not only a nursing responsibility. A multi-disciplinary approach engaging all members of the team can lead to improved patient safety. In an open clinic area, the boundaries of doorways and cubicles do not exist to cue the provider of the need for hand hygiene. The unique challenge of multiple care area designs in a single clinic prompted us to think about the safe care threshold in a different way.

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### **“I’VE GOT YOUR BACK” NURSES SUPPORTING NURSES IN MANAGING SECONDARY TRAUMATIC STRESS (STS)**

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**Category: Psychosocial Dimensions of Care**

Oncology nurses often experience secondary traumatic stress (STS) by witnessing the decline and death of patients. The results of STS can lead to compassion fatigue and burnout. By observing oncology nurses in an outpatient setting, it was identified that nurses exhibited STS through non-verbal and verbal signs of emotional distress. A six-question survey was sent out by a team of nurses to evaluate how STS affected nurses both mentally and physically. Out of 119 oncology nurses, 40 nurses responded to the survey stating they were experiencing sadness (87.5%), compassion fatigue (55%) and stress (27.5%). The purpose was to evaluate if the implementation of a nurse led support group would decrease STS amongst outpatient oncology nurses. A monthly support group facilitated by an in-house psychiatrist and social worker was created for RNs and NP’s to share their experiences of STS. Ten nurses attended the first meeting and zero attended the second. An informal face to face survey identified that nurses felt unsupported with psychiatry and social work facilitators since their patient interactions and experiences differed from nursing. A decision was made to revise the support group to be exclusively nurse driven and renamed “Healing Hands”. Monthly meetings were scheduled with guiding topics such as maintaining work-life balance and how to access employee assistance programs. Time was allotted for open discussion and reflection of experiences. This allowed for nurses to recognize similar emotions and struggles in their personal and professional life. The three meetings following the revision had an average of 9 nurse attendees. Face to face informal feedback showed that nurses were able to identify symptoms of STS such as disengagement, negative coping mechanisms and ethical dilemmas. By using the support and experiences of their peers, nurses felt their emotions were validated and were able to identify resources to manage STS. A 6-month post survey program evaluation is planned. Facilitating a nurse led support groups is an effective method in providing a safe space for oncology nurses to discuss STS. Through the implementation of a nurse led support group it was discovered that nurses were more motivated to participate and engage in peer-support programs. Oncology organizations with various settings can utilize this type of program to support their nurses and address STS.

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### **STOP, WATCH, GO: USING UNIVERSAL IMAGERY TO TEACH COMPLEX TOPICS TO DIVERSE PATIENTS AND FAMILIES**

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**Category: Patient Education and Safety**

Hematology/Oncology patients/families are taught fever with a central line and/or neutropenia is a medical emergency. They must call the medical team immediately and arrive ready for access/treatment. Timely notification and arrivals enhance patient outcomes, improve nursing sensitive indicators, and accelerate antibiotic delivery times. A caregiver-initiated protocol (CIP) called the Pre-registration Oncology Process (POP) is used to help patients receive timely antibiotic administration. The threefold purpose: to successfully educate diverse Hematology/Oncology patients/families on fever emergencies with a universally familiar image, increase the number of patients/families calling their medical team before arriving, thus initiating the POP CIP and to meet a national benchmark for antibiotic delivery time. Noting difficulty understanding what qualifies as a fever, the Aflac patient/family education (APFed) team recognized the need for a visual tool. A document was created using a green/yellow/red color scheme to teach the fever guideline. The team sent this document to marketing, requesting a visual tool utilizing stoplight or thermometer images. The APFed team selected the best option created by marketing: a magnet with a thermometer image using stoplight colors. The team also polled nurses about encountered roadblocks to successful utilization of the POP CIP and edited our patient emergency wallet cards to address the barriers mentioned while adopting a similar color scheme to the magnet. The APFed team began verbally teaching the guideline in spring 2018 using the concept of a stoplight. The new magnet and wallet card were added to new patient education materials and as needed for existing patients starting in June 2018. The two-hospital POP utilization rate improved from 79% (2017) to 92% (2018) and to 93%

in quarters 1 & 2 of 2019. The percentage of patients meeting goal antibiotic delivery time (60 min) at one campus improved from 72.6% (2017) to 84.5% (2018) and to 83.2% in quarters 1 & 2 of 2019, and at the second campus from 83.6% (2017) to 87.2% (2018) and to 93.6% in quarters 1 & 2 of 2019. Many patients/families have preferred learning styles other than verbal/written language, a primary language other than English or Spanish, and/or low health literacy. Creating tools with visual, universally-understood images have empowered more patients/families to understand and appropriately respond to significant health changes.

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### **PREVENTION OF CANCER WITH THE GARDASIL 9 VACCINE**

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**Category: Screening, Early Detection, and Genetic Risk**

Federal Drug Administration has increased the age of Gardasil-9 from 27 years to 45 years. Our goal is to prevent cancers associated with the human papilloma virus. We are targeting our active duty military and retiree populations and immunizing these groups based on the proper age criteria. We will first evaluate the number of patients that complete the Gardasil-9 series (a series of 3 dosages administered over the course of 6 months). Our ultimate goal will be to determine if our vaccination program will reduce the number of HPV associated cancer in these populations. The United States has experienced low levels of patients that actually complete the series of Gardasil vaccinations. Our goal would be to use the military medical record system to identify and subsequently complete the series in this population. Ideally, this vaccination would be mandatory for the active duty military given the reduction in cancers that can be prevented. Approximately, 90% HPV associated cancers can be prevented by this vaccination. We will institute a Gardasil-9 vaccination program where none previously existed in order to reduce the number of HPV associated cancers in our active duty and retiree populations. Our ultimate goal would be to make this vaccination mandatory for the military population given its overall effectiveness. This intervention would have a subsequent impact in the civilian population because literally thousands of people would be highly encouraged to be vaccinated, thereby, reducing the rates of HPV spreading and diminishing the incidence of HPV associated cancers.

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### **NURSES REPORT A PATIENT IS GOOD TO GO, ARE THEY REALLY?**

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**Category: Oncology Nursing Practice**

Nurses review orders for accuracy and release pre-meds if the order is appropriate. This is part of the anti-cancer treatment order verification process. Pharmacy begins their verification process after nursing. The review process for nursing was not standardized and there were variations in the nursing practice. An increase in medication omissions and incorrect doses was being captured by the pharmacists. An interdisciplinary workgroup was developed to review standards, pilot an intervention and improve nursing practice. The workgroup consisted of pharmacists and infusion nurses. After several workgroup meetings, a worksheet was developed for nursing to utilize prior to medication administration. The items on the worksheet were items that mirrored standards from ONS/ASCO and ASHP. Infusion nurses were surveyed prior to implementation. Survey questions were identified by infusion nurses from the Good to Go worksheet developed by the work group. Questions focused on order accuracy consisting of nurses reviewing allergies, previous doses, height/weight, therapy plans, and orders entered. They also compared primary patients to add on patients. A training video was developed and viewed by all staff on the pilot unit. The pilot was discussed at staff meetings. There were nurses and pharmacists identified as team members to assist with the initiative. Daily debriefing huddles were held during implementation with feedback incorporated with revisions made to the worksheet for the following day(s). The same survey sent prior to implementation was sent out 3 weeks after implementation. Nurses reported feel better organized and more focused. Nurses also reported improvement, via the survey, in many of the areas to improve their nursing practice from less than 75% of reviewing orders for accuracy to 76–100%. With the positive impact on nursing practice and patient safety, the Good to Go project was implemented throughout the institute in the summer of 2018. Team members include infusion nurses and pharmacists from all units. A training video was assigned to all infusion nurses. The survey was also completed by infusion

nurses throughout the institute and demonstrated the same results as the pilot unit, improving nursing practice from less than 75% reviewing accuracy of orders to 76–100%.

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### **CREATING A CULTURE AND BUILDING PROCESSES FOR SAFE AND RELIABLE CARE IN A LARGE COMPREHENSIVE CANCER CENTER**

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**Category: Patient Education and Safety**

Preventable harm in healthcare has been described as contributing to anywhere from 40,000 to 400,000 deaths a year. In a large comprehensive cancer center, a sentinel event occurred in the administration of oral chemotherapy. The event was investigated thoroughly using the Root Cause Analysis methodology. A Just Culture algorithm was utilized to identify system issues, and the staff involved in the event received immediate support from leadership and quality. These actions, and the work effort that followed, support the culture of safety and promote learning within the organization - two components essential to the foundation of safe and reliable care. The purpose of this project was to demonstrate an innovative implementation of organizational just culture behaviors to enhance clinical care and promote the culture of safety, even in the context of serious reportable events. All staff associated with the event were interviewed, work flows were mapped, best practices assessed and opportunities for improvement identified. An inter-professional team of physicians, advanced practice providers, nurses, pharmacists, team coordinators and patient family advisors reviewed all aspects of the event and developed interventions to address each opportunity. Interventions included standardization of ordering processes, care team communication, patient education and label administration directions. Several forums were utilized to support the nurse involved and ensure dissemination of knowledge to other care teams by having her share the story. To ensure these improvements can continue to cultivate the culture of safety, a documentary video was created. Utilization of just culture, staff support and systems-focused improvement efforts vetted through an inter-professional team created a safe space for honesty, transparency, and innovation. Change was needed to influence workflows and establish standardized processes across physicians and clinical teams. The

nurse involved in this error was invited to share her story via the medium of a documentary film providing an impetus for change of care practices across the comprehensive cancer center. Importantly, it has also allowed the nurse to heal and remain in the field, continuing to provide excellent care. Her story documented in video continues to inspire the culture of safety and assure the best outcomes of care for oncology patients.

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### **GAMMA KNIFE RADIOSURGERY, UPDATE IN PRACTICE: STANDARDIZING CARE OF THE NEURO-ONCOLOGY PATIENT BY REVISING AND IMPLEMENTING POLICIES AND PROCEDURES AND EDUCATION OF STAFF**

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*Category: Coordination of Care*

At the Center of Advanced Radiosurgery, neuro-oncology patients diagnosed with benign and malignant brain tumors primary or secondary to their oncological diagnosis are treated with gamma knife radiosurgery. Stereotactic Radiosurgery has changed how we currently are able to manage brain metastases. Oncology patients make up more than half of our patient population and therefore proficient nursing practice is essential in providing safe, competent, and consistent care. The role of the Gamma Knife nurse is key in assisting the navigation of the patient through the Gamma Knife operation. We noticed there were some variations in the method of nursing care given to patients receiving Gamma Knife Radiosurgery, perhaps due to limited education or information regarding Gamma Knife Radiosurgery. Only one Gamma Knife Radiosurgery policy existed, which needed revision and did not address additional procedures, updated practices, or an interdisciplinary collaborative approach in caring for these patients. The purpose of this project was to standardize the process of care given to patients receiving Gamma Knife Radiosurgery by revising and creating new policies and procedures and by educating staff. The nurses are currently revising and implementing the following policies and procedures in order to standardize care: “Management of the Patient Receiving Gamma Knife Stereotactic Radiosurgery with Leksell Headframe”, “Management of the Patient Receiving Gamma Knife SRS for Arteriovenous Malformation Requiring Angiogram”, “Management of the Patient Receiving Fractionated Gamma Knife Radiosurgery”. A unit

based Gamma Knife orientation packet includes: a brief overview of what types of brain lesions are treated, a power point presentation which describes the Gamma Knife process, role of the Gamma Knife nurse, and work flow aids to help new nurses organize and time manage. Implementation and maintenance of peer-to-peer audits included: procedural sedation, anticoagulation teaching, pregnancy monitoring, and safety and fall prevention. In-service education was also provided to interdisciplinary units caring for our patients, such as PACU, Interventional Radiology, Pediatrics, Radiation Oncology, and Infusion. Evaluation: Increased nurse and interdisciplinary collaboration, staff awareness, accountability, and ultimately patient safety. In conclusion, by implementing and updating our standard of care for our neuro-oncology patients needing Gamma Knife, and by educating staff on both an intra- and inter-disciplinary scale, we are able to provide safe, consistent, care throughout the NYU Langone Health system.

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### **IMPLEMENTATION OF A PROTOCOL ACUITY TOOL**

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*Category: Oncology Nursing Practice*

Clinical research is imperative to the development of new treatment options in hopes of curing or prolonging the quality and quantity of life of cancer patients. Clinical trials are increasing in quantity and complexity of required timed data collection. To establish effectiveness of a treatment, time-specific data collection must be accurate and consistent among trial participants. Timed collections begin at the zero-time point when the agent is introduced. A deviation of even one minute constitutes a violation; the data can then be viewed as compromised. Violations affect the integrity of the study and can also affect patient safety. In an ambulatory cancer center, infusion nurses are caring for patients receiving standard therapies and research regimens simultaneously. Violations occur if nurses' schedules do not allow for attention to time specific data collection. The purpose of this project was to develop an acuity grading scale for clinical trial cancer patients in an ambulatory clinic to reduce clinical trials violations and increase nurse confidence

in the care of patients on clinical trials. The acuity grading criteria were developed from a combination of time analysis of protocol tasks, combined with an assessment tool that graded protocol acuity on a one to four scale. The acuity scale was developed using a zero to two scale and attached to an RSI (research intermediate) appointment type. The charge nurse would note the RSI appointment when reviewing the nurses schedules and manipulate the nurse schedule to allow time for the complexity of care required for protocol patients. There has been a fifty percent reduction in violations within three months across three disease centers. Nurse confidence level in caring for clinical trial patients increased by forty percent. The work environment for infusion nurses has improved. The nurses feel more control over their day and ability to provide patient care. The decrease in clinical trials violations improves patient safety and the integrity of data collection. Through the collaboration of multiple disciplines, clinical trials now have standardized processes. Nurse education, protocol flowsheets and guidance documents have been standardized across the disease centers. The creation of the acuity appointment type can be used to measure the volume of research appointments and the acuity of care associated with them.

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### **A PROCESS IMPROVEMENT PROJECT TO REDUCE CALL TURN-AROUND TIME (TAT) FOR BLOOD AND MARROW TRANSPLANT (BMT) SURVIVORSHIP TELEPHONE TRIAGE**

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Category: Survivorship

Long-Term Follow-Up (LTFU) Telemedicine provides life-long support to 6000+ blood and marrow transplant (BMT) survivors and their local providers. Queries (n=65 weekly) typically are about graft versus host disease (GVHD), infections, relapse, subsequent malignancies, late effects, revaccination and quality of life (QOL) issues, with a TAT standard of 48 hrs. The LTFU team determined a 24-hr TAT would be a best practice. The purpose of this project was to design a system response where the standard TAT is 24 hrs for local providers seeking consultation on BMT patients.

Base analysis revealed currently only 27% of queries met the 24-hour TAT (average= 46 hours). The LTFU team initiated a new standard procedure of an email sent to the local provider within 24 hrs of the query to acknowledge receipt of request and estimated time to expect recommendations. This contact was utilized to request any additional information needed to facilitate the care provider's query (medical records, photographs, GVHD Assessment and Scoring form, radiology images). After implementation of intervention, data demonstrated 92% of providers received a 24-hour TAT, with 48% within 3 hours TAT. Reduction in defect rate changed from 73% to 8%. LTFU received unsolicited positive feedback from local providers (12%) in the data collection period expressing gratitude for expeditious response to their queries. Initiation of a new step of an email from LTFU nurses increased satisfaction with local care providers and facilitated an efficient method to provide additional patient information. Email improved time efficiency by eliminating time spent holding on the phone or playing phone tag with providers. The TAT data collection was initially done manually between 2015-2019. In 2019 an auto query tool was added to the electronic medical record (EMR) system enabling efficient auto data evaluation of additional new TAT interventions. With an upcoming transition to an EPIC system, a new auto query process must be developed. Using an EMR auto query TAT tool makes data collection more efficient and supports the TAT 24-hour standard between LTFU and local providers. Continuing to gather data and refine systems brings the LTFU team closer to meeting its goal of improving the lives of transplant survivors.

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### **NURSE WELLNESS: A BATTLE WITH BURNOUT**

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Category: Professional Development

The term 'burnout', where exhaustion exceeds compassion in the physical and mental demeanor of caregivers, is frequently regarded in the nursing world but the term itself carries little weight. On malignant hematology units, the drain of compassion fatigue and burnout are almost palpable. The current state of science provides ample resources that echo the influence of nurse wellness and its impact on quality of care. But how can one measure the extent and impact of burnout on any given unit? An abridged version of the Maslach Burnout

Inventory was created and sent to 140 inpatient nurses on a malignant hematology and bone marrow transplant unit. The survey consisted of 10 questions and allowed nurses to rate on a scale from 1 to 5 how they felt about certain aspects of their job and work-life balance. From these results, and with a 47% response rate, a staggering 89% of responders verbalized some degree of burn out. From this data, the Nurse Wellness Program was formed. The program's framework focuses on providing resources including free opportunities for mindfulness meditation sessions as well as information describing the hospital's current faculty and staff assistance programs. Monthly chair massages for nurses, an events calendar, and monthly staff events outside of work were also initiated. Lastly, a 'Zen Center' within the staff break room was created to provide a quiet space equipped with yoga mats, a massage chair, and meditation/self-care tips. This program is entirely self-funded and sustained by a committee of 7 inpatient nurses. The survey was reissued 6 months following the program's initiation to the same group of inpatient nurses with a goal to decrease the measured degree of burnout by 20%. Unfortunately, quantitative results revealed that 95% of staff (44% response rate) continue to feel some degree of burnout. Qualitative responses, however, confirm appreciation and encouragement to continue wellness efforts by the malignant hematology nursing staff. The Nurse Wellness Program will continue to develop resources for staff, understanding that everyone copes differently. This program's existence provides a framework to customize self-care in an effort to combat this vulnerable nursing population's risk for depersonalization and ultimate burnout.

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### OPTIMIZING CARE OF THE ORAL CHEMOTHERAPY PATIENT IN AN OUTPATIENT ONCOLOGY CLINIC

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Category: Coordination of Care

From April-June 2018, we found 10 patients of 160 that were not compliant with their oral chemo regimen

and follow up appointments. 5% of patients were followed by the oral chemo RN. This raised concerns of safety due to inconsistent surveillance of adherence and side effects. The complexity of oral regimens is challenging to patients who do not always understand the impact of non-compliance and routine follow up. These patients have a complex disease process; therefore, compliance and timely follow up is imperative to safety in mitigation of potential adverse events. There are more and more oral agents being developed which results in an increase in prescriptions and potentially more patients added weekly. The team identified the current state, performed a root-cause analysis, and identified a target future state. The following solution-based interventions were utilized: (a) Providers began to use available oral chemotherapy treatment plans in the electronic medical record (EMR) which includes all of the surveillance requirements. (b) Developed a scheduling template for oral chemotherapy RN/patient follow up visits and education. (c) Patients were asked to bring in pill bottle(s) for pill count by oral chemotherapy RN at each visit. (d) All clinical staff to use "oral chemo" FYI on Department Appointment Report (DAR) in order to identify oral chemotherapy patients on the schedule. (e) Educated nursing staff to utilize online resources for oral chemotherapy information. (f) Developed and implemented an individualized symptom assessment tool to be reviewed with the oral chemotherapy RN. At project initiation, 93.7% of patients were adherent to oral chemotherapy treatment plan, 90% reported self reported adherence, 94% were seen by the MD/APP, and 34% were seen by the oral chemo RN. At the 90-day check in we increased appointment completion to 98.2%, 96.4% reported adherence, 98% were seen by the MD/APP. At the 60-day mark 63.6% saw the oral chemo RN. At 90-days only 34% saw oral chemo nurse due to unexpected absence. Interventions allowed the oral chemo RN to stay current on the patient's status. Created extra volume for front desk staff but patients liked meeting with the oral chemo RN. Project resulted in creation of standard workflow, development of patient toxicity assessment form and symptom tracker. Pill counting was discontinued due to many variables.

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### MULTIDISCIPLINARY APPROACH TO STOP THE SPREAD OF CLOSTRIDIUM DIFFICILE (C. DIFF) IN HEMATOPOIETIC STEM CELL TRANSPLANT (HSCT) UNIT

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Category: Oncology Nursing Practice

*Clostridium difficile* (*C. diff*) is the most common organism to cause healthcare-associated infection (HAI) in the United States. *C. diff* infection (CDI) rates in Hematopoietic Stem Cell Transplant (HSCT) recipients are up to 9-fold higher than those in other inpatient units due to weakened immune systems, long hospitalizations and antibiotic treatments. The nursing team and Infection Prevention and Control (IPC) personnel on the HSCT unit noticed the cluster of HAI CDI. From January to June 2019 the unit had a total of 10 cases; 6 cases alone were in May 2019, raising concern about daily practice. Evidence-based strategies have been implemented to reduce environmental contamination and increase education of patients, visitors, and staff. This paper describes how the unit established a “ZERO Harm” comprehensive plan to reduce the number of HAI CDI by 20% in 6 months on a 16-bed HSCT inpatient unit. Interventions: (a) Established meetings with Environmental Service (EVS) and Food & Nutrition (F&N) and nursing team to discuss action plan. (b) Implemented double cleaning of room, adenosine triphosphate (ATP) inspection for isolation room. (c) Educated staff regarding sending stool specimens for polymerase chain reaction (PCR) testing. (d) Utilized disposable food trays, stethoscopes and pillows. (e) Implemented a “No sharing” rule for mobile equipment such as weight scales. (f) Validated on cleanliness of shared equipment such as glucometers by the fluorescent dye. (g) Educated clinicians in the proper practice of PPE and hand hygiene. The HSCT unit had 13 cases of HAI CDI in 2017, 25 cases in 2018 and 10 cases from January to June 2019. The intervention started in July 2019 and HAI CDI data will be collected until December 2019 for post-intervention evaluation. Environmental cleanliness, proper precautions, and education are vital to reduce CDI. Collaboration between nurses, IPC, EVS, and F&N is essential to stop CDI transmission. Utilizing ATP testing and the fluorescent dye helps to validate cleanliness of the environment. Despite reducing HAI CDI to one case in August 2019, there were opportunities identified related to equipment cleanliness and educational gap. Obtaining disposable curtains and additional weight scales is considered. The future implementation of a “clean protocol” for nursing is next step.

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### STANDARDIZATION OF EVIDENCE-BASED INTERVENTIONS FOR SKIN CARE AT THREE

### RADIATION THERAPY FACILITIES IN THE HEALTH CARE SYSTEM

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Category: Oncology Nursing Practice

Radiation dermatitis can negatively affect patients’ physical functioning and quality of life, cause pain and discomfort, limit activities, and delay treatment. The staff within the health care system had concerns that each of the three departments recommended different products. The goal of the project was to evaluate the effectiveness of the different products and standardize practice across the system. The nurses were motivated to study the effectiveness of adding Calendula oil to the lotion that is recommended for skin care based on previous research and patient demand for complementary/alternative interventions. The goal was to standardize breast radiation skin care throughout the system while reducing cost. Due to the high level of interest in complementary interventions, the group evaluated the effectiveness of adding calendula to the patient’s skin routine. A team was created including nurses from each treatment site. The literature was reviewed and education to staff about how to assess skin care reactions using Common Terminology Criteria for Adverse Events (CTCAE). Patients were instructed to use moisturizing lotion twice daily. The site that recommended Vanicream gave patients the option of adding Calendula to the lotion. The staff was educated about the use of the CTCAE skin toxicity scale for documentation of skin reactions. Charts were audited to evaluate the severity of skin reactions from 7-1-17 through 6-30-18. Products used and skin reactions of 204 patients were monitored. There was no significant difference in skin reactions among the patients relative to products used during radiation therapy to the breast. The findings revealed no significant difference in skin reactions. This is consistent with previous studies found in the literature. The high level of interest in complementary interventions by patients makes it imperative for oncology care providers to help patients make informed decisions on complementary, alternative, and integrative medicine use. It is important that patients and providers are clear about the role of integrative oncology therapies. Studies indicate that patient-provider communication and patient education about complementary/alternative interventions should be improved. The study facilitates use of evidence to recommend skin care recommendations and interventions, including the use of integrative interventions.

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### UTILIZATION OF EVIDENCE BASED SKIN REACTION ASSESSMENT FOR PATIENTS WHO ARE TREATED WITH RADIATION THERAPY INCLUDING CALENDULA OIL

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Category: Oncology Nursing Practice

Radiation dermatitis can negatively affect patients' physical functioning and quality of life, cause pain and discomfort, limit activities, and delay treatment. Radio dermatitis may also cause interruption in or cessation of treatment depending on the severity of the reaction. Many common nursing interventions for radio dermatitis are based on tradition or opinion and have not been researched thoroughly. In addition, evidence to support some current interventions in practice is lacking. Up to an estimated 95% of patients receiving radiation therapy will experience some degree of skin reaction, which may include erythema, dry desquamation, and moist desquamation. Oncology nurses play an important role in educating, assessing, and monitoring patients for radiation skin reactions. Reviewing the literature as well as use of standardized assessment tools is the best way to move toward evidence based practice. The organization's Magnet designation requires the use of evidence based practice. The purpose of this project was to compare the severity of skin reactions in patients who are receiving radiation utilizing the CTCAE skin toxicity scale and document the products that are used on the skin to compare effectiveness. Patients were instructed to use moisturizing lotion twice daily and to bathe as usual using unscented products. Patients were given the option to add Calendula in jojoba oil to the lotion. Each of the three facilities used different lotion. The reactions were compared across the facilities. Charts were audited to evaluate the severity of skin reactions from 7-1-17 through 6-30-18. Products used by patients were monitored. There was no significant difference in skin reactions among the patients relative to products used during radiation therapy to the breast. The findings of the skin care study are consistent with previous studies found in the literature. In the future, we suggest that the study be limited to evaluation of one product such as the addition of Calendula to lotion. The design of the study will focus on one technique and field such as only patients who

are treated to the chest wall. The study facilitates use of evidence to recommend skin care recommendations and interventions. This will enhance the RN's ability to integrate information and coordinate care of the patient, thus removing barriers to care.

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### FAST TRACK STANDARDIZATION: IMPROVING PATIENT SAFETY ACROSS THE ORGANIZATION

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Category: Coordination of Care

Two years ago Huntsman Cancer Hospital initiated an extensive remodeling effort to expand clinic space, "right size" disease clusters, and improve efficiency. This initiative not only involved clinic space, it also involved our Fast Track/Lab areas. A surprise byproduct of this process was the realization that these areas had a high degree of variation in practices. A Fast Track Standardization group was formed with representatives from all five areas to develop standardized practice. The Fast Track Standardization committee identified charting, clinic flow, and communication between staff as a priority for standardization. With representatives from all five areas the group started with clinic flow. Implementing an Epic driven event tab communication system improved staff's ability to move patients through clinic in an efficient manner. Establishing a template optimization system enabled the schedulers to place patients on the schedule in a way that allowed for Fast Track staff to decrease patient wait times. The committee worked with the billing and Epic team to create an accurate charting system along with a Fast Track Guide to be used in training new staff. Measuring the "Moving through your visit" and "Lab technician" areas of the Patient Satisfaction (Press Ganey) surveys resulted in an overall 2.5% increase in patient satisfaction scores. Feedback from front line staff showed improved collaboration and relationship development between all outpatient fast track staff. Documentation, clinic flow, communication within and between clinics are all improved. Standardization now allows for consistent orientation and training, easy floating between departments and increased patient safety. The Fast Track standardization group would like to implement a standard clinic preparation process to all outpatient



clinics. This would involve both Fast Track nurses and clinic nurses with the goal of improving communication and coordination of actions to be taken during clinic visits.

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#### **PRIOR AUTHORIZATIONS FOR MEDICATIONS IN PEDIATRIC ONCOLOGY—STRATEGIES TO SUPPORT PATIENTS AND CLINICAL STAFF**

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Category: Coordination of Care

The Seattle Children's Hospital (SCH) Cancer and Blood Disorders Center (CBDC) implemented the prior authorization (PA) specialist position to decrease the administrative workload placed upon clinicians to complete PAs and appeals for outpatient medications. The results of this position have increased clinician's patient-centered time, decreased a loss of funds used to cover uncompensated care, and decreased delays for patients and their families by streamlining the authorization process for prescription medications. PAs are required for many of the outpatient medications prescribed by our pediatric oncologists and hematologists. Oftentimes, hematology and oncology PAs are complicated and time-consuming as a result of commonly prescribing medications for indications without FDA approval. Originally, the task of completing PAs within the CBDC was left solely to RNs and Nurse Practitioners divided among six, disease-based teams (DBTs). Prior to the implementation of the PA specialist position, the administrative workload placed on these clinical staff was estimated to be 20 hours per week. This decreased face-to-face patient care and, as clinical staff lacked the capacity and training to handle all outpatient medication PAs, many medications were never authorized by insurers. As a result, the cost of these medications was left to the burden of the patients and their families, with some cases being covered through SCHs uncompensated care program. Additionally, without a standard process in place, significant delays in obtaining insurance authorization occurred, resulting in patient and family anxiety as well as increasing the risk for poorer clinical outcomes due to delays in starting medication. Within the first six-months of implementation, the PA specialist managed to save the CBDC clinical staff an overall 532.5 hours, representing a 102% decrease in the estimated 20 weekly hours of administrative time used by clinicians to complete PAs. Through the creation of a streamlined process that

differentiated pathways for prescriptions based on their FDA off-label/on-label usage, the overwhelming majority of PAs (83.3%) completed by the PA specialist within this 6-month timeframe were approved by insurance. Consequently, it is hypothesized that patient and family anxiety related to insurance coverage for prescription medications decreased, thereby improving clinical outcomes.

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#### **THE GUIDE COMMUNICATION FRAMEWORK: IMPROVING THE BENEFIT OF NURSE-PATIENT INTERACTIONS**

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Category: Patient Education and Safety

Nurses are regarded as a go-to figure for patients with cancer. Nurses empower their patients through guidance and support throughout the treatment journey and are an active member of the multidisciplinary team in supporting and promoting shared decision-making. The GUIDE communication framework is designed to help oncology nurses and advanced practice providers fulfil this challenging role for patients with colorectal cancer, so that patients feel empowered in participating in their cancer treatment-related choices. GUIDE is a mnemonic; each letter represents a crucial step in nurse-patient interactions. G stands for Gaining insight into the goals of treatment and care. Being an active member of the multidisciplinary team that makes the treatment decision allows nurses to fully understand and support it, instilling confidence in their patients. U stands for Understanding the gaps in the patient's knowledge, which allows nurses to prioritize where they focus when it comes to informing and educating the patient, increasing efficiency. GUIDE promotes the use of the Ask, Tell, Ask model: the nurse asks the patient to describe their understanding, then tells the patient the right information to fill their knowledge gaps, and finally asks the patient to explain the information back in their own words. This allows the nurse to ascertain the patient understands the main messages. I stands for Informing and educating both the patient and their carer. The right level of information is crucial for patients to manage their treatment successfully. D stands for Directing to additional support, helping patients and carers navigate the healthcare system, addressing their full spectrum of needs. E stands for Empowering the patient, making them feel they can actively participate

in the shared decision-making and treatment process, with the medical team there for them every step of the way. Patient empowerment increases treatment compliance and potentially improves outcomes. The GUIDE framework is supported by a blended-learning program, consisting of a series of patient case study-based videos and an e-learning. Funding source: GUIDE was developed on behalf of Nurses CONNECT, for more information visit [www.nurses-connect.info](http://www.nurses-connect.info). Nurses CONNECT is supported by an independent educational grant from Bayer.

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#### **IMPROVING ACCESS AND COMPLIANCE TO PERSONAL PROTECTIVE EQUIPMENT FOR CHEMOTHERAPY ADMINISTRATION AND CHEMOTHERAPY WASTE DISPOSAL**

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*Category: Oncology Nursing Practice*

A 329 bed urban hospital with an inpatient oncology unit identified non-compliance with personal protective equipment (PPE) when administering chemotherapy, the handling of patient excreta post-chemotherapy administration and chemo waste disposal. Previous practice for obtaining the required PPE entailed utilizing chemotherapy caddies that contained appropriate PPE for chemotherapy administration. The chemotherapy caddies were located on the oncology unit; there was not a standard practice for other hospital units to obtain these. This was deemed a barrier as a defined process for obtaining, cleaning, and returning the caddies was lacking. It was also identified the organization could improve upon the chemo waste disposal practice. The locations of trace chemo waste containers throughout the hospital were not clearly identified and on the oncology unit non-chemo waste was being inappropriately disposed of as trace chemo waste. The Chemo Cart process was implemented in the hospital to mimic the already implemented isolation cart process (i.e. for contact precautions). The Chemo Cart contains: chemotherapy rated gowns and gloves, face and eye protection, yellow trace chemotherapy waste bags, chemotherapy spill kit, chemotherapy sharps container, and chemotherapy precaution signage. The cart remains outside of the patient's room; a yellow trace chemotherapy waste disposal container is delivered with the Chemo Cart. The trace chemotherapy waste container is placed inside the patient's room for proper chemotherapy waste disposal. Large trace

chemotherapy waste containers were also placed throughout the hospital. The Occupational Safety and Health Administration (OSHA), as well as other regulatory agencies, have identified worker exposure to hazardous drugs as a problem of increasing health concern. The purpose of the Chemo Cart implementation is to provide all hospital staff access to chemotherapy PPE and trace chemotherapy waste containers; therefore, improving overall safety and compliance. The Chemo Cart process has improved access to chemotherapy PPE, as well as appropriate chemotherapy trace waste containers. Through intermittent hospital rounding, accurate placement and utilization of the Chemo Cart and trace chemotherapy waste containers has been confirmed. The implementation of this process allows for access to the necessary PPE, reducing hospital team member's chemotherapy exposure risk. This process has also decreased the chemotherapy waste volume by 588 pounds over a four month period of time, and has improved waste disposal compliance for the entirety of the hospital.

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#### **CHEMO RN CONSULTANT: IMPROVING THE SAFETY AND EFFICIENCY OF CHEMOTHERAPY ADMINISTRATION THROUGHOUT THE HOSPITAL**

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*Category: Oncology Nursing Practice*

A 329 bed urban hospital with an inpatient oncology unit identified barriers impacting safety and efficiency within the delivery of chemotherapy. Chemo RNs reported delayed chemotherapy administrations, difficulty facilitating the administration on non-oncology units, and identified noncompliance with chemotherapy standards and policies. To address these concerns and support the organization's vision of improving quality, safety, customer experience, employee engagement, and to improve efficiency, the Chemo RN Consultant position was developed in 2018. The Chemo RN Consultant is a chemotherapy competent RN who does not have a patient assignment and is scheduled 0700-1530 seven days a week. Expectations of the Chemo RN Consultant include: Facilitating chemotherapy double checks and administering chemotherapy throughout the hospital, providing consultation to patients and non-chemotherapy competent nurses, coordinating bone marrow biopsy and intrathecal chemotherapy procedures, and collaborating with multidisciplinary

team members to facilitate care for the patient across the healthcare continuum. The complexity of care for patients receiving chemotherapy in the hospital is increasing; therefore, the importance of safety measures and the coordination of care are imperative. Numerous published safety guidelines define specific standards outlining safety for patients receiving chemotherapy. One of these standards is the ASCO/ONS Chemotherapy Administration Safety Standards which addresses staffing-related issues, antineoplastic therapy planning, documentation, orders, preparation, patient education, administration, and monitoring within all settings and patient populations. The Chemo RN Consultant's purpose is to reduce the complexity and improve the safety of chemotherapy administration, comply with standards, and align with the organization's vision. Since implementing the Chemo RN Consultant position, there has been a reduction in time for the intrathecal chemotherapy administration process by 62 minutes, and a 42 minute improvement for the inpatient chemotherapy order release to administration time. The number of 2018 (compared to 2017) hospital chemotherapy incident reports has doubled due to the Chemo RN Consultant identifying chemotherapy standards and policy noncompliance. The implementation of this position improved the safety of chemotherapy administration and reduced delays throughout the hospital, as evidenced by the data. It provided additional time to educate patients, coordinate care, and provide chemo consultation throughout the hospital. Implementing this position in other hospitals would improve the efficiency of chemotherapy administration and facilitate safety standards and policy compliance.

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### **RITUXAN, RITUXAN, WHAT'S THE RIGHT SPEED FOR INDUCTION?**

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**Category:** Coordination of Care

At the end of this session, participants will be able to identify individual risk factors for reactions preceding rituximab (Rituxan) administration, grade adverse reactions during infusions, and apply an algorithm to safely administer Rituxan. Rituxan is frequently administered to oncology patients in both inpatient and outpatient settings at Penn Medicine and is

known for its high reaction potential. Administration differs between these settings, with unclear variation in both infusion rates and characterization of adverse reactions. No policy currently exists on best practices for administration. The purpose of this project is to examine the safety and efficiency of slow and rapid Rituxan administration in oncology patients, and to standardize administration between inpatient and outpatient settings at Penn Medicine. The PICO method was used to formulate the clinical question for administration of Rituxan by oncology nurses at Penn Medicine, how does standardization of administration, including priming tubing, infusion rates, and grading adverse events, between inpatient and outpatient settings, compare to current practice, in which tubing is not primed with the drug, infusion rates are not based on risk factors, and adverse reactions are not scaled, impact patient's length of stay? As this plan has not yet been implemented, results are derived from current literature. Processes used in this project included conducting a literature review and initiating ongoing discussions with stakeholders, such as patients, nurses, pharmacists, and both outpatient and inpatient unit and hospital management. Upon examination of present evidence, multiple risk factors for experiencing adverse reactions to Rituxan have been identified. Additionally, studies report that priming the tubing with Rituxan is best practice. Finally, following rapid infusion protocol when indicated can decrease inpatient length of stay and improve patient and nurse satisfaction. The next steps for this project include working with oncology nursing leadership to implement an algorithm into nursing policy for safer administration of slow and rapid Rituxan, coordinating with pharmacy to have infusion tubing primed with the drug, and educating inpatient and outpatient nurses on evidence and changes in administration.

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### **UTILIZING TELEPHONE TRIAGE TO EFFICIENTLY MANAGE SYMPTOMS IN THE OUTPATIENT ONCOLOGY POPULATION**

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**Category:** Symptom Management and Palliative Care

In recent years, oncology care has shifted to the ambulatory care setting. Patients are spending more

time at home and less face-to-face time with their oncology team while undergoing treatment. With this shift, comes the challenge of identifying, reporting, and monitoring patients' symptoms. To remedy the challenges, RCCA CJDiv enhanced our telephone triage nursing department to improve readiness in providing quality assessments, evaluations, and interventions for this population. The biggest hurdle for the triage team is the delay between symptom onset and the initial call to the triage department. Over a two week period, all calls were recorded and classified into different categories such as symptoms, medication questions, lab results, etc. The 460 symptom calls were divided into two sub categories: the initial call within 24-48 hours of symptom onset (~ 43%) and the initial call >48 hours after symptom onset (~ 57%). After analyzing the data, we created a triage flyer to educate patients on the necessity of reporting symptoms at their onset, the number to call, and who would be answering their calls. The flyer was added to the treatment education folder handed out by the Advanced Practice Provider (APP) during the treatment education appointment. By adding the flyer, the APP is prompted to verbally mention "call triage with symptoms" further reinforcing the need to call. Since implementing the flyer in the treatment education packets, triage has had an overall increase in the number of symptom calls. In addition, there was also an increase in the number of calls with symptom onset < 48 hours. The number of calls made after hours has also increased as patients are being educated on the availability of a provider during non-clinic hours. By providing education about the role of triage, we have noticed increased compliance with reporting of symptoms at onset and utilization of the off-hour's resources. Reporting symptoms at early onset has allowed us to develop a more comprehensive plan for symptom prevention, identification, and management throughout the course of their treatment. Furthermore, patients have verbalized an increase in satisfaction with their overall care while undergoing active therapy.

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#### **STANDARDIZATION OF PATIENT EDUCATION ACROSS MULTIPLE NAVIGATION SITES**

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[Category: Patient Education and Safety](#)

A Central Texas ambulatory oncology system initiated a nurse navigation program in 2015, involving two individual clinic sites. Patient education was developed by the sole nurse navigator at each clinic site. Items of interest included the national Psychosocial Distress Screen, patient resources and overall education. As nurse navigators were hired at each site, education pieces were needed and shared. As the navigation program has expanded, there are now 12 navigators in five clinic sites. Standardization of patient education has become a goal of the combined clinics, to both improve communication between navigator and patient and to improve resource utilization for new navigators to the system. A common-use electronic file was developed for access by all nurse navigators across the system. Rather than re-writing or revising educational information, the navigators developed links to national websites that are more rapidly updated to improve patient information accuracy and accessibility. Quarterly telephone conference or face-to-face meetings created at the outset of the navigation program to allow improved discussion and comparison of programs, improve resource sharing, and update review of AONN and ONS standards of practice. Comparing the strategy employed by Central Texas nurse navigators with those employed by other systems, based on a literature review, challenges of work-flow differences for each navigator were found to be consistent with similar barriers common to other programs. Each navigator created a standard work document to help the group understand the different roles of individual navigators. At quarterly meetings, roles were reviewed and clarified to emphasize differences in site practice. Once the roles were understood, the focus shifted from standardizing roles to developing shared education resources that would be consistent among all the programs in the system, regardless of the differences in how those programs were run. This process helped navigators standardize patient education. Nurse navigator dashboards were created with disease-specific education links, to provide access to updated national resources, rather than being limited to date-specific printed materials. The dashboard information was, and continues to be, used during patient initial consultations, education visits, and to complete Survivorship Care Plans.

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### IMPLEMENTING SERIOUS ILLNESS CONVERSATIONS IN A GASTROINTESTINAL ONCOLOGY CLINIC: A MIXED METHOD EVALUATION OF A QUALITY IMPROVEMENT INITIATIVE IN A TEACHING HOSPITAL

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Category: End of Life

Advanced care planning happens too late in patients with metastatic gastrointestinal cancer. Patients and families lack prognostic awareness, are ill and are poorly equipped to make informed end of life decisions. A Serious Illness Conversation guide was developed and implemented in a Boston hospital to aid practitioners (oncology nurse practitioners and oncologists) in facilitating advanced care planning. The purpose of this project was to describe provider experience with the conversation guide and understand facilitators and barriers to implementation of advanced care planning. Serious Illness Conversation Training was performed for each individual provider. Providers were given post training support for 3 months, January 2019 - March 2019. In addition to weekly individual support given to the 5 providers to reinforce workflow and documentation. Individual interviews were conducted post training in addition to chart reviews at 3 separate time points. Electronic medical records were reviewed of 121 patients with metastatic gastrointestinal cancer to identify documentation of ACP, as well as health care utilization outcomes. Patients in the post-intervention cohort had a shorter time from diagnosis to ACP (advanced care planning) conversation compared to those diagnosed one year prior to the intervention ( $B = -293.58$ ,  $95\%CI -1003, 446$ ,  $P = 0.407$ ), but this was not statistically significant. Provider knowledge and communication skills around advanced care planning can help patients and their families ask appropriate questions that could open the door for more meaningful goal focused dialogue and improved outcomes for patients and their families. This way of communicating could have a synergistic effect on the healthcare system, leading to a shift potentially in care that is driven by cost and disparity. To care that is driven by early discussions that are patient centered. This is a seismic shift from the current state of advanced care planning, where isolated/transactional decisions are made in a crisis moment about code status or to provide anti-cancer therapy within days of a patient's death. Identifying at risk populations to have early and subsequent conversations, leading to

patient focused medical interventions in the cancer trajectory. This would decrease patients' exposure to highly medicalized care at the end of life and hearing a patient's hopes/wishes.

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### REDUCING ADMINISTRATION ERRORS WHEN TITRATING OBINUTUZUMAB

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Category: Oncology Nursing Practice

The titration rates of Obinutuzumab, as outlined in the package insert, require the nurse to convert the rate of mg/hr into ml/hr. This confusing practice increases the risk for programming errors. Additionally, Obinutuzumab has two approved FDA indications with distinct dosing and rate titrations. These complexities can lead to inaccurate titrations, causing patient harm and unnecessary healthcare cost. There were two reported medication errors related to the inaccurate titration of Obinutuzumab in our infusion room in 1st Q of 2018. The purpose of this performance improvement project is to increase patient safety by reducing medication errors, specifically inaccurate titration of Obinutuzumab. The setting of this project is an 80 chair, hospital-based outpatient infusion center with over 60 RNs on staff. Over the 2 year period of 9/1/17 to 8/31/19, 266 doses of Obinutuzumab were administered. Interestingly, we are seeing more Obinutuzumab. There was a 29% increase in doses administered since August 2018. Titration cards were developed based on the package insert in collaboration with pharmacy to assist nurses with accurate programming of titration rates. The cards are specific to the diagnosis Obinutuzumab is being given for as well as which cycle, as each of these factors affect the rates of infusion. They are color coded with the cancer ribbon color associated with the diagnosis. Nurses in the infusion area received education regarding the cards and their use in practice. They were implemented 7/1/2018. The pharmacy team will continue to monitor for new indications and changes in guidelines to ensure the cards mirror the most current drug insert. This project was acknowledged by our IRB as QI in nature and not subject to IRB approval and oversight. Since implementation of the cards, there have been zero reported titration errors related to Obinutuzumab. Nurses have expressed gratitude for the cards. They have reported the cards have saved time and increased patient safety. Both

new and experienced nurses have received updated and ongoing education on use of the cards and medication errors related to titrating Obinutuzumab. For our setting, these cards developed by nursing in collaboration with pharmacy worked as intended. There were zero reported titration errors with Obinutuzumab since implementation. The cards are an innovation for our institute and perhaps others, as little is published.

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### **IMPROVING TIMELINESS IN LUNG CANCER DIAGNOSIS IN THE COMMUNITY HOSPITAL SETTING: IMPLEMENTATION OF A HIGH RISK LUNG PATHWAY AND CLINIC**

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Category: Coordination of Care

Lung cancer is the deadliest malignancy in the U.S. and early identification and diagnosis is crucial to improving patient outcomes. Delays in the diagnosis and treatment of lung nodules are common, and the timely diagnosis of lung nodules suspicious for cancer is critical. A community based health system with a comprehensive Cancer Center has a long established programmatic goal of suspicious lung finding on radiological imaging to tissue diagnosis time in 28 days or less. It was identified that this goal was no longer being met and delays in Lung Cancer diagnosis were occurring. The purpose of this project was to improve the timeliness in lung cancer diagnosis in a community hospital setting. A multidisciplinary, multi-departmental task force team was formed to analyze system processes, contributing factors, and to brainstorm a corrective action plan. A quality improvement model was developed and Lewin's Change Theory was used to guide project implementation. The lung nurse navigator served as the primary change agent. A Total Lung Care Center Medical Director and Administrative Coordinator were named. A High Risk Lung Pathway was built. A structure and referral process for High Risk Clinic appointment scheduling was developed. A High Risk Lung Pathway and Clinic were implemented and quality data carefully recorded. Evaluation of 171 patients demonstrated that the average days from suspicious radiological finding to tissue diagnosis were successfully reduced to well below the goal level of 28 days. The average decreased from a high point of 84 days to a new average of 15 days. This demonstrated an 82% improvement in timeliness to lung cancer diagnosis

over a one year period. The implementation of a High Risk Lung Pathway and Clinic resulted in successful improvement in timeliness in lung cancer diagnosis in a community hospital setting. Key components of this model include a dedicated Medical Director, dedicated Nurse Navigator, and a multidisciplinary oversight committee. This innovative practice implementation has resulted in strengthened care coordination and improved patient outcomes, as well as improved patient, family, and staff satisfaction.

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### **PACLITAXEL REACTION RATES AND IMPACT ON NURSING PRACTICE**

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Category: Oncology Nursing Practice

Paclitaxel reaction rates were a practice concern at a large comprehensive cancer center. Current practice was thoroughly evaluated for root causes and identified issues with pre-medications and inconsistent language in paclitaxel order-sets. Further analysis was conducted by the center's Medication Safety Workgroup on hypersensitivity reaction data, order-set variability, and nursing practice. A literature review was completed to ensure recommendations aligned with evidence-based best practice. The purpose of this project was to improve patient safety and nursing practice through reduction of hypersensitivity reactions to paclitaxel. Hypersensitivity reactions after the start of a paclitaxel infusion were identified from Electronic Health Records (EHR) using administration of rescue medications as a metric of correlation. Reaction rates for first doses were 10% with a 5% incidence overall, which are higher than the 1%–3% percent reported in the literature. Seventy-six percent that reacted to their second dose did not react to their first. Thirty-one percent of reactions included a pre-medication that was given less than 30 minutes prior to the start of the infusion. This percentage may have been conservative due to the use of syringe pumps which can deliver medication over five to 15 minutes. Based on the findings, the following five order-set and nursing practice changes were recommended: 1. All pre-medication administration standardized to at least 30 minutes prior 2. Pre-medications required for all first and second dose administrations regardless of previous reaction

3. Eliminate “may hold” language from paclitaxel pre-medication orders 4. Default pre-medication route to oral, except for dexamethasone 5. Eliminate use of syringe pumps to standardize nursing practice. The project interventions were implemented as an organizational roll-out with education. This quality improvement project combined data analytics and recommendations in current literature to improve nursing practice and patient safety. This project examined the multiple factors contributing to our paclitaxel reactions rates including lack of standardized order-sets and nursing practice. Data was pulled from the EHR, literature reviews were completed, and other NCI designated organizations were consulted to understand the current landscape of best practice. Monitoring of reaction rates and compliance to practice changes were monitored to ensure sustained improvements. The Medication Safety Workgroup continues to assess the need for further improvements to nursing practice.

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#### **PARTNERING WITH SPECIALTY PHARMACY AND INFORMATION TECHNOLOGY TO STREAMLINE PROCESSES AND ADDRESS COMPLIANCE TO ORAL CHEMOTHERAPY STANDARDS**

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*Category: Patient Education and Safety*

Oral chemotherapy treatment is complex. Order management, financial navigation, monitoring/ managing adverse events, and addressing adherence are challenging for the health care team and patient. All aspects must be managed effectively for optimal outcomes and safety. The American Society of Clinical Oncology and the Oncology Nursing Society published standards on oral chemotherapy management. These standards, included in the Quality Oncology Practice Initiative and required for certification, provide a framework for developing a comprehensive approach to oral chemotherapy. This information prompted the Fred and Pamela Buffett Cancer Center team to evaluate processes for improvements. Nebraska Medicine formed a multi-disciplinary team in March of 2016 to identify process improvement opportunities and standardization surrounding oral chemotherapy delivery and monitoring. The team identified areas to enhance safety and quality including: inconsistency in documenting treatment start dates, lapses in patient education, incomplete assessments, and questionable medication adherence. A

plan was developed to eliminate these inconsistencies. The Nebraska Medicine Specialty Pharmacy (SP) was providing some patient education and documentation upon initiation of oral chemotherapy and documenting 7–10 day follow up calls. In March 2017, a pilot started in collaboration with the NMSP. Upon entering an oral chemotherapy order into the EMR it is automatically routed to a specialty pharmacy work queue for prior authorization. Subsequently, a pharmacist partners with the patient and medical team to confirm treatment start date, provide education and perform follow-up calls. Customizing the EMR template created ability to quantify quality safety metrics and institute best practices. Over the past two years, the team has identified numerous challenges: start date variability, lack of visibility to patients using outside pharmacies, changes in treatment plans and data aggregation. Engaging SP and the information technology team streamlined work flow, provided better patient education, automated processes, and achieved meaningful data collection on number of patients with orders, contacted, started as scheduled, took as prescribed and missing doses. These changes led to an expansion of the pilot offerings. All patients started on oral chemotherapy will receive a complete set of resources for safe and effective management. By partnering with SP and information technology experts, there is an opportunity to meet all relevant standards and improve the safety and quality of patients undergoing oral chemotherapy treatment.

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#### **THE NURSE PATIENT ACCESS SPECIALIST ROLE DECREASED EMERGENCY ROOM BOARDING TIME AND FACILITATED ADMISSIONS TO INPATIENT ONCOLOGY UNITS**

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*Category: Coordination of Care*

Admission time delays and placement decisions impact care to oncology patients. Here, we report our 2018 experience with admission time delays and placement decisions at our cancer institute inclusive of outpatient clinics and infusion, three inpatient units, and an associated university-based tertiary care facility when we reached maximum capacity for admissions. During this time, some cancer patients meeting strict clinical criteria were diverted and admitted to an oncology specific unit at an affiliated community hospital. Historically, admission placement decisions were made centrally

by staff without an oncology background. The Nurse Patient Access Specialist role was developed to fill this gap and manage oncology patient admissions. The Nurse Patient Access Specialist role was filled by two experienced oncology resource nurses. The purpose of this role was to decrease time to admission and facilitate appropriate inpatient unit placement. Over a 12 month period, 565 patients were diverted to our affiliate hospital and occupied 10–12 beds daily. This diversion decompressed the cancer institute, medical/surgical and emergency observation units at our associated hospital. We measured wait times from the emergency department and outpatient clinics to unit admission and placement as meaningful patient outcomes stemming from the Nurse Patient Access Specialist role. We found a 10% decrease in emergency boarding time as measured by time from decision to admit to the time of inpatient unit arrival. Also, we were able to admit 30% of urgent cases directly to our cancer center inpatient units versus transporting oncology patients to the emergency department as an intermediary. The admission of oncology patients to non-oncology floors became rare. The Nurse Patient Access Specialist role effectively decreased admission time and resulted in more appropriate placement to ensure care by staff having oncology specific training and oncology nurse certification. The Nurse Patient Access Specialist role became a valuable resource to nurses, physicians, the central admissions department by managing and coordinating all oncology patient admissions. A ripple effect included enhanced patient safety, improved quality of care, staff and patient satisfaction. Nurses are educated and uniquely positioned to coordinate patient care. An oncology nurse in this role positively impacts decision-making regarding admission placement to ensure care excellence. Our plan is to continually evaluate the impact of this role at our cancer institute and further define and modify it.

### 380 **PROMOTING ENGAGEMENT OF NURSES IN A PROFESSIONAL ASSOCIATION THROUGH OPTIMIZING THE USE OF SOCIAL MEDIA**

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Category: Professional Development

For the first time in history, there is a confluence of four generations in the workplace resulting from the aging of the nursing profession. This demographic shift also impacts professional associations for nurses. In most associations, the baby boomer generation has traditionally formed the bulk of membership. As the

baby boomer generation of nurses retire, it becomes an imperative for professional associations to both engage and retain younger members, i.e., the millennial generational cohort, to maintain a vibrant and healthy membership base. Communication preferences will differ based upon one's generational cohort. Chapters must be aware of and adjust communication processes for maximum impact. The purpose of this quality improvement project was to improve organizational communication processes through using the Facebook page of a large metropolitan Oncology Nursing Society (ONS) chapter in the Southwestern United States. The project used the Plan-Do-Study-Act quality improvement method, with the chapter's existing Facebook page serving as a platform to test alternating communication strategies (e.g., messages using videos, photos, or hyperlinks) based on theory-based posting with a purpose. Marketing messages and chapter news sought to target the career needs of millennial nurses. Reach and engagement metrics available from Facebook were used to measure improvement. To maintain consistency, the project set a threshold of a minimum of one post per week. The project was carried out from January to March 2018. Reach and engagement metrics were collected and showed improvement of over five percent during the 8-weeks of the project's duration. Of the tested communication strategies, short videos performed the best, followed by photos. With regular communication to members from the chapter through diverse Facebook messaging, a link with members was forged that tied them to the chapter and strengthened the virtual community through extension of reach and improvement of engagement metrics. Local ONS chapters must strive to use communication strategies that will appeal to generational cohorts present in their membership.

### 384 **MONITORING SAFETY OF AT-RISK ONCOLOGY NURSES: DEVELOPMENT OF A POLICY FOR A MEDICAL SURVEILLANCE PROGRAM**

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Category: Oncology Nursing Practice

Oncology nurses frequently handle hazardous drugs that place them at risk for developing serious acute and chronic health issues. Current NIOSH and USP standards recommend that at-risk staff be enrolled in medical surveillance programs to monitor for changes in health. However, not all facilities are



adhering to the recommendation. It is critical to develop and implement a vital surveillance protocol for safety of at-risk oncology staff. The purpose of this project is to develop a policy for medical surveillance of at-risk staff and to implement the protocol via system-wide dissemination following the PDSA (Plan-Do-Study-Act) cycle framework. This surveillance program improves at-risk staff safety through evidence based on laboratory and health assessment data, and by confirming that in-place prevention measures such as personal protective equipment are effective when no adverse health issues are found. A multi-disciplinary team performed a literature review, researched, and developed the policy. Stakeholders were consulted to determine impacts that the new policy would propose to the system as a whole. The developed framework for the policy includes inclusion and exclusion criteria for determining at-risk staff; triage, survey, and physical assessment tools; and workflow for prescribed monitoring through Occupational Health. Educational tools were created and provided to at-risk staff of the pilot unit. Staff were successfully enrolled and baseline labs and health assessment data were collected. After enrollment of at-risk staff on the pilot unit, nursing staff and occupational health providers were surveyed on their level of satisfaction with, and perception of, the process. Modifications were made to the workflow based on employee feedback before implementing the policy hospital-wide. Implementing a medical surveillance program is an emerging need, in light of recent USP 800 guidelines mandating such safety programs for staff handling hazardous drugs. With many hospitals around the country not yet developing policies to fulfill this mandate, this presentation offers a framework to assist nurse leaders in developing the policy and tools needed to maintain adherence with guidelines, and improve oncology nurses' safety in the workplace. With the USP 800 guidelines mandating medical surveillance of at-risk staff being placed into full effect on December 1st, 2019, development of this policy framework is a current and cutting edge topic.

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### **SUSTAINING IMPROVEMENT AFTER THE END OF THE PROJECT: KEEPING THE MOMENTUM GOING**

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**Category: Oncology Nursing Practice**

Continuous improvement has become part of our oncology service line's culture. We have participated in many projects over the course of time which have resulted in increased efficiency, cost savings, improved quality, nursing satisfaction, and enhanced patient safety. A common threat to the success of a project is completed sustainability. In 2016, we developed an infusion staffing model to maximize efficiency of our nursing teams, reduce costs and maintain quality/patient safety. While the initial project and implementation of the model was successful, we did not want to fall into the pitfall of being unsustainable. The purpose of our abstract is to outline the steps that can be taken to ensure there is not a loss of momentum once a project has been implemented. Upon completion of our staffing model project, we had initially relied on retrospective data pulls which were translated into a spreadsheet and sent to stakeholders. Our initial implementation team leveraged the involvement of our data analysts and the technology that they utilize to build a dashboard that looks at both historical data and can be used to predict future needs. The dashboard serves as a type of visual management of the previous project, keeping the information easily available and current. We have periodic meetings to disseminate up to date staffing information and have the support of leadership to act upon the data as needs are identified. In this particular sustainment example, we maintained the staffing model through visual management, data analytics and discussion of the data at a regular cadence. We engaged with our leadership regularly to ensure that attention to the model remains static and does not fall off of the priority of initiatives. A key component of sustainment is maintenance of the initial implementation team, engagement with senior leadership and partnering with analytics teams to provide visual management. By creating the dashboard we are able to have timely data that can be used to forecast the need for additional staffing. Sustainment of continuous improvement initiatives can be difficult, but not impossible when organization transitions from a temporary improvement approach to an overall cultural of improvement mindset.

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### **DEVELOPMENT OF STANDARDIZED OUTREACH AND DOCUMENTATION OF CARE**

## COORDINATION ACROSS A LARGE HEALTH SYSTEM

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Category: Coordination of Care

The primary aim of care coordination is to meet the patients' needs and deliver high quality, high value care through very deliberate activities as the patient navigates through the health system. In the absence of standardized approaches, there may be fragmentation in care, lack of efficiency and poor communication. Standardized assessments, outreach, and documentation may foster an environment focused on quality, safety, cost savings and improved patient experience. Our cancer program unites the oncology service line through over 18 locations spanning the majority of Ohio. Patients may receive care at one or more sites dependent on their preference. While we are one health system, there are differing infrastructures at some locations which could lead to variation in care. Through RN care coordination we strive to ensure that teams, though they may have differing leadership, embrace the expected responsibilities, targeted outreach and documentation. A team was developed to work a project utilizing the PDSA method to create uniform, time point specific documentation templates for nursing care coordination. A multi-site team developed the relevant content, incorporating key symptom assessments, reinforcement of education, key contact information, barriers to care, and when to seek medical attention. Implementation of standard templates occurred in August 2019 at 12 locations and is being expanded to an additional 7 locations by end of 4th quarter 2019. Analysts have built monthly reports to track completed notes. We hope to see an increase in patient satisfaction, reduction in hospital admission and reduction in care variability through the use of standardized outreach and documentation. We plan to develop further analyses of these templates to assist in identification of common factors that may lead to hospitalization or ED usage. Further analysis is needed to determine the overall impact of standardization on patient outcomes. We continue to build reports, export the data and analyze the information to determine if there are common factors that can be utilized to determine the success of targeted outreach in reducing hospitalization and ED usage. We are partnering with biostatisticians on a predictive model for relative risk of ED utilization and to

determine if there is a significant correlation between reduced risk through standardized care coordinator outreach.

## 389 PATIENT ASSIGNMENT METHOD IMPACTS ON NURSE SATISFACTION

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Category: Oncology Nursing Practice

Ambulatory infusion centers face a common dilemma—balancing high patient demands for peak hour scheduling while attempting to maintain operational efficiency and safe nurse to patient ratios. One of the biggest indicators of burnout in outpatient oncology nurses is stress of workload and part of this stress is precipitated by patient acuity and daily assignments. Pre-assignment of patients is a common technique where nurses begin their day with a set of planned patients, giving them time to familiarize with the patient history and treatment plan. Potential downfalls of this strategy include variations to what is expected such as cancellations, adjustments to care needs, delays, or changes in condition. In a large NCCN cancer center seeing over 200 patients per day, changes were needed to improve the system of patient nurse assignments. The purpose is to examine two different patient assignment methods and evaluate the impact each method had on workload equity, nurse satisfaction, patient satisfaction, and organizational efficiency. The ambulatory infusion center implemented a comparison of two models of patient assignment: Pre-assignment and Dynamic Assignment. Dynamic assignments designate a nurse to specific rooms. Patients are then assigned based on room availability and nurse skill. When variations occur, the charge nurse fields these changes without disrupting nurse flow and maintains an even workload for the team. The same staff rotated on the two units and were exposed to both models of assignment. Dedicated staff on each unit did pre-review of patient charts to ensure completion of necessary treatment requirements. Comparison Measures included workload equity, patient wait time, nurse-to-patient ratios, nurse satisfaction indicators, and charge nurse time preparing assignments. By improving workload equity

as well as utilizing space and staff more efficiently, the stress of daily assignments decreases and nurses can better manage the care of their patients, thus reducing the incidence of burnout. Efficiency in infusion room nurse assignments can improve nurse job satisfaction as well as promote best clinical experiences for patients.

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### **INTUITIVE TELENURSING IN CANCER CARE**

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**Category:** Coordination of Care

In a 1,000-bed level one trauma center the oncology service line recognized that staff were unable to be fully attentive to their patients due to high phone call volumes. Nurses were frequently called away which hindered patient care by interrupting communication critical to understanding their complex needs. Team leads sought to find an alternative way to conduct telephone triage with careful attention to patient specific needs. These insights would then drive methods of telenursing practice that were tailored to the available oncology services. The newly dedicated call center extracted incoming calls from three different areas: the infusion center, physician's offices and the radiation therapy department. A team comprised of three registered nurses and four ancillary team members received a week-long competency-based education regarding team building, telephone etiquette, available resources, physician specific protocols, and the criteria required to escalate calls. This education also included a resource manual with easy access reference materials. Prior to the call center, each department received around 64 calls per day. Now, the call center receives an average of 270 calls per day which facilitate immediate resolutions from a live person. Patients' urgent needs are addressed along with the initiation of ancillary services such as referrals to psychosocial, nutrition, social services, and pastoral care. The Cancer Care members consequently receive quality time to focus on patient needs in a safer environment. Streamlining the incoming calls help the telenurse gather insight to the patients' complex care plan. Instead of having three different areas separately answer to the patients, now their needs are addressed as a whole. This has helped identify areas of opportunity for patient education including treatment side effect management, post-operative care and early signs of sepsis. It has also led to implementation of telenursing protocols

and procedures. Technology introduces opportunity for the nurse to use their intuitive nursing process. This begins with active listening and thorough assessment which aids in developing rapport and building trust. This can lead to appropriate nursing diagnoses and advocacy for patient driven, effective treatment outcomes. Long past are the times when checking the boxes is sufficient to meet our patients' needs. Our thoughtful evaluation and personal investment will lead to world-class patient care.

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### **FEMALE SEXUAL HEALTH POST TREATMENT—A SURVIVORSHIP COMPONENT**

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**Category:** Survivorship

Many times in oncology nursing, our male patients fill out a sexual health inventory for males (SHIM). This is a baseline assessment for sexual function prior to oncology treatment, mainly for prostate cancer patients whose sexual function may change after treatment. There is no standardized baseline assessment tool for females despite knowledge that female sexual function will change after certain cancer treatments. Survivorship needs to start once a patient is diagnosed and steps should be taken to maximize quality of life in every aspect. Sexual health is a major part of survivorship that needs to be addressed. We need a baseline assessment in order to evaluate and treat post treatment changes. The first step is a thorough baseline assessment prior to any oncology treatment for sexual function including sexual habits, sexual symptoms and overall satisfaction with current, pre treatment, sexual function. This should be in the form of a written or computerized questionnaire that can be accessed post treatment and filled out again at that time to compare and assess changes from treatment. The best intervention is communication, enabling a safe, comfortable place for open discussion is paramount. Education is empowering and reassuring to women, focusing on what to expect after treatment as well as normalcy of changes and emphasizing treatments and support are available to maximize sexual/intimacy quality. Evaluation would start with evaluating changes/effects of treatment on sexual function/intimacy and patients level of satisfaction with their sexual health before and then after treatment. If level of satisfaction is not acceptable, then working within the survivorship domain to increase this is ideal. This may include referrals to specialists. Discussion regarding standardized assessment for female sexual

health and which assessment tool works best will be demonstrated in this poster as well as common sexual dysfunction concerns for women post treatment. The end goal being a tool that is standard and well known like the sexual health inventory for men (SHIM).

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### **EMPOWERING NURSES TO INCORPORATE THE SERIOUS ILLNESS CONVERSATION FRAMEWORK INTO REGULARLY SCHEDULED PATIENT-CENTERED CARE CONFERENCES DURING INPATIENT ONCOLOGY ADMISSION**

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*Category: Coordination of Care*

Advance care planning (ACP) conversations do not occur on a regular basis in the inpatient adult oncology setting. Evidence shows that these conversations occur late in the trajectory of a patient's cancer diagnosis as the patient nears end-of-life, ultimately leading to high-stress goals of care meetings. Early conversations allow for high-quality, goal-concordant care and for promotion of patients' quality of life throughout the course of serious illnesses. Often when discussions take place, there is inconsistent documentation in the electronic health record (EHR) that would allow the information to be referenced by all members of the healthcare team. Inpatient oncology nurses have a unique role in facilitating and encouraging ACP. Nurses are central to supporting consistent communication and understanding within the patient's care team. Research conducted in critical and palliative care settings shows that nurses report barriers for participating in or conducting ACP conversations include a lack of empowerment and understanding of their scope of practice. Nurses can contribute valuable information to improve patient care and should feel empowered in their nursing practice. Through the implementation of standardized, regular, nurse-directed patient-centered care conferences this quality improvement project aims to 1) improve consistency and content of ACP discussions with oncology patients, their families, and the inpatient oncology healthcare team, 2) increase consistency of EHR ACP documentation and completion of advance directives, and 3) provide education to nurses with the goal of increasing nurse empowerment. During review of the literature this quality improvement team did not identify implementation

of a similar nurse-driven intervention in the oncology setting. This quality improvement project took place on a 32-bed medical oncology unit at a large urban teaching hospital. Approximately 90 Registered Nurses (RNs) were given a pre- and post-intervention survey to assess knowledge and feelings of empowerment utilizing a validated instrument. In addition, patient medical records were reviewed to assess ACP documentation completed by oncology RNs. Educational sessions were provided to discuss RN scope of practice, scheduled ACP meetings and documentation. Nurse-directed, patient-centered care conferences occurred within 72 hours of admission and continued at 96-hour intervals utilizing an evidence-based framework, the Serious Illness Conversation Guide (SICG). Data extraction and analysis are ongoing. A full analysis will be available at the presentation highlighting three months of intervention.

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### **EMPOWERING NURSING TO IMPROVE AND RE-DESIGN THE SCALP COOLING PROCESS**

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*Category: Oncology Nursing Practice*

Scalp cooling is a recently FDA approved evidence based intervention available for treatment that was implemented in a National Cancer Institute Cancer Center. The purpose of this quality improvement project was to engage nurses to understand the barriers experienced at the initial implementation of scalp cooling and evaluate and re-design the best practice process to improve the implementation of scalp cooling. One of the most devastating adverse effects for women with breast cancer undergoing chemotherapy is the loss of hair, known as chemotherapy induced alopecia (CIA). Alopecia significantly impacts a woman's quality of life and body image. Some new Food and Drug Administration approved scalp cooling treatments, Dignicap<sup>®</sup> and Paxman<sup>®</sup>, have shown to be effective in preventing hair loss, however, there are no national guidelines available. A qualitative approach using focus groups and strength, weaknesses, opportunities, and threats analysis. All breast oncology infusion nurses who were trained in how to use scalp cooling were invited via email to participate in a one-time process evaluation and redesign exercise. Data were collected in multiple focus group sessions, 12 months after the initial implementation of the scalp cooling device, Paxman. The discussion was focused on implementation steps that are working or needed improvement to map the best re-design

implementation process. Data were categorized into “what works already” and “what needs to be improved” and were summarized. A redesigned process was then established that can undergo continuous improvement evaluation. Four main themes emerged from the data with examples: (1) work flow-working, (2) work flow-needs improvement, (3) patient experience and (4) nursing satisfaction. In addition to patients’ needs for further detailed education, the nurses also felt the need for ongoing educational sessions with updated data in relation to efficacy of CIA in scalp cooling. This was felt to be empowering for them in helping facilitate the necessary support for every patient to make informed decisions about the use of scalp cooling. Despite the identified process areas that needed improvement, most nurses were satisfied with the use of the scalp cooling process in general. Patient education and patients’ expectations were the primary factors discussed. More standardized educational sessions, written information, and videos are needed for patients as well as the nursing staff.

#### 402

##### **CLOSTRIDIUM DIFFICILE INFECTION (CDI) PROTOCOL: A NURSE DRIVEN INITIATIVE**

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Category: [Oncology Nursing Practice](#)

Clostridium difficile infection (CDI) is a critical patient safety issue especially among oncology patients. It’s increased prevalence worldwide has a substantial impact on healthcare cost and patient health outcomes. The purpose of the project was to implement an evidence-based CDI screening algorithm and stool tracker tool that will guide nurses with early identification of CDI cases and promote prompt initiation of patient isolation. The study aimed to test the feasibility of the interventions in increase nursing compliance with accurate testing demonstrated by the decrease in the number of tests ordered, canceled, and specimens rejected by the laboratory for testing. This project was conducted at a specialized cancer hospital that had an increased number of CDI cases in the year 2017–2018. The hospital had a total number of 22 cases which twice higher than the national benchmark established by the National Healthcare Safety Network (NHSN). The standardized infection rate (SIR) for acute care hospital was set at 0.993 and the current hospital SIR rate was at 2.8. The intervention includes a screening algorithm based on the Society for Healthcare Epidemiology of America and

the Infectious Diseases Society of America guidelines (2014) and a stool tracker tool to accurately monitor the number of stools in a 24-hour period. The project design was a pre and post intervention analysis. Data were analyzed using rank transformation and paired samples t-test. Results shows a significant decreased of HO CDI with the adoption of the screening tool ( $p < .05$ , 95% CI, -7.83, -4.16). The number of tests canceled significantly decreased with the use of a stool tracker tool compared to baseline data ( $p < .05$ , 95% CI, 5.77, 9.72). Lastly, the number of tests ordered significantly decreased with the use of evidence-based interventions ( $p < .05$ , 95% CI, -13.60, -5.39) compared to previous data. The use of a standardized screening algorithm and CDI specific protocol had demonstrated improved adherence by nursing staff with C. diff testing and served as the first step in reducing false positive results, proper isolation of patients, and overall reduction in HO CDI. The results show that the nurse-driven intervention provided the staff clear steps to follow concerning the early identification & timely initiation of isolation of potential CDI patient.

#### 406

##### **THE SEXUALITY OF MEN WITH HEAD AND NECK CANCER: AN INTEGRATIVE LITERATURE REVIEW**

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Category: [Psychosocial Dimensions of Care](#)

Health professionals working in the care of patients with HNC should have scientific subsidies to identify the sexual problems arising from the tumor or the antineoplastic treatment, be they organic or emotional. The objective was to analyze and discuss scientific evidence on the sexuality of men with head and neck cancer linked to smoking and alcoholism. An integrative review of the subject was completed in PubMed and Web of Science databases. MeSH terms: “head and neck cancer”; “sexual behavior.” Because these tumors happen more frequently in men, we opted for articles that focused on this population. We considered articles published in the last 10 years. The

search happened in May 2018 and the final sample had six articles. We structured the results in three parts: i) the repercussions of the treatment for head and neck cancer; ii) the importance of sexuality in the assessment of the quality of life of the patients with head and neck cancer; iii) the relevance of the patient's sexuality for clinical practice. It became evident that new studies are needed in order to clarify questions concerning the sexuality of patients with head and neck cancer. Since most studies used a questionnaire with only one or two items on sexuality, we also identified a lack of evaluative tools for the assessment of the sexuality of patients with these tumors.

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#### **AMBULATORY INFUSION APPOINTMENT SCHEDULING BASED ON CHAIR AVAILABILITY: AN ONCOLOGY NURSES' INITIATIVE**

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Category: Coordination of Care

Providing streamlined quality treatment experiences poses a significant challenge for a NCI-designated cancer center of an academic medical center in a metropolitan area. Two of the major challenges faced are variability between patient scheduled appointment times and actual arrival times, and accommodating same day add-ons/urgent treatments. The vast majority of our patient population travel long distances, therefore coordination of care that includes a variety of same-day appointments within in the cancer center including labs, physician appointments, possible imaging, radiation oncology and infusion is the optimal goal. Historically, scheduled patients, add on patients and supplementary procedures were scheduled based on nurse availability and overall capacity of the infusion unit with the majority of the appointments being scheduled at the same time. Non-adherence to scheduled appointment times by patients, physician overbooking, delays in other departments and an

overall increase in patient volume have created excessive patient wait times, which have adversely affected patient/family satisfaction. As infusion space could not be enlarged and patient satisfaction being a primary goal, determining another way to handle these challenges was necessary. A multidisciplinary team was developed consisting of charge nurses, nursing leadership, physician leadership and infusion scheduling managers. The team was tasked with optimizing chair utilization based on the following criteria of existing patient appointments and potential add-ons for unexpected/emergent patient treatments for issues such as nausea, dehydration, and pain management. These unexpected add-ons frequently occur, and therefore the infusion unit needed to have the ability to be flexible. A guideline of drug regimens, created by the nurses with the length of chair time required for each regimen was provided to the schedulers to assist them with making appropriately timed appointments. The new scheduling process went live April 2019. Through the ongoing efforts of the multidisciplinary team, this newly implemented chair utilization process has been a success. Patient wait times for an infusion chair have been significantly reduced. This change has improved the overall treatment experience as evidenced by an increase in patient satisfaction. This new process facilitates a better prediction of patient arrival times, overall volume and greater coordination with the physician office practices. The team continues to meet regularly to discuss the positive outcomes of the new process and brainstorm solutions for obstacles that arise.

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#### **UTILIZATION OF ONCOLOGY INFUSION CHAIRS AND IMPLICATIONS FOR NURSING CARE**

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Category: Oncology Nursing Practice

As the number of available drugs and the complexity of treatments increase, infusion nurses are reporting heightened care acuity. Excessive workload is associated with work stress and negatively influences patient-nurse communication. There is

an urgent need to understand usage patterns of the infusion unit and identify factors that can influence nurses' workload. Chair usage data was collected over two weeks in the spring of 2018. During each clinical encounter, an infusion nurse recorded the time when the patient was brought to a chair and the time when the patient left the chair. The sum of actual chair usage in minutes from these encounters was compared to the sum of planned duration of the same encounters. Reasons for delays in treatment or patient departure from the unit were also recorded. Four-hundred-eighty-four encounters were captured. The number of patient arrivals varied throughout the day. The period between 10:00 and 10:30 A.M. had the greatest number of patient arrivals. The total duration of chair usage among all patients was 53,018 minutes, compared to the planned total duration of 43,340 minutes. The most frequent reasons for delays in treatment were late patient arrival, pending labs, and missing orders. The most frequent reasons for departure delays were clinical issues, transportation, and admission to inpatient. Patients spent a much longer time than what was anticipated in the infusion unit. Correcting scheduling errors and minimizing delays through quality improvement projects are indicated. Additionally, patients' chair usage and nurses' workload were influenced by external factors. It is important to understand how these factors influence patient-flow to the unit. We need to build a system that allows monitoring of these factors, timely anticipation of a workload increase, and workforce redistribution. Such a system would support nurses in maximizing their job performance and delivery of patient-centered care to our oncology patients.

#### 413 OBTAINING LATE PHARMACOKINETICS WITHIN INSTITUTIONAL TIME RESTRAINTS

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Category: Coordination of Care

The University of Pittsburgh Medical Center (UPMC) Hillman Cancer Center (HCC) in Shadyside Pennsylvania, houses the Clinical Translational Research Center (CTRC). The CTRC is responsible for administering Phase I/II clinical trial treatments to oncology patients and executing all requirements of the clinical trial including, but not limited to, frequent vital signs, electrocardiograms and patient monitoring, medication titration, and timed lab draws to measure pharmacokinetics (PK) of therapies. The CTRC operates on a 12-hour schedule from 7 AM until 7 PM.

Difficulty meeting the requirements of clinical trials was noted when five deviations were reported in a five-month time period, all related to timing of PK lab draw. Specific challenges were noted in clinical trials that required a one to two-hour infusion of drug followed by an eight-hour post infusion PK lab draw. Variables such as CTRC hours of operation, lab processing, order entry, verification and approval, as well as pharmacy mixing time can cause delays in treatment initiation, leading to missed post infusion PK and causing a deviation. To maintain data integrity, it is important to complete all requirements of the protocol at the time points specified in the study. The purpose of this project was to create a process to ensure these longer clinical trials were executed appropriately, within the facility's operational hours. In effort to decrease deviations related to later PK lab draws, CTRC patients received their physical exam and protocol lab work the day prior to treatment. Once the patient was cleared to receive treatment, the CTRC would notify the pharmacy of the patient's status and the time to which the infusion should be initiated. This designated start time allowed for successful PK draws, as well as offered a buffer of time for any unforeseen delays. As a result of the interventions, the CTRC had 13 months free of deviations related to institutional time restraints PKs. Barriers identified included thaw time of medications, patient arrival time and earlier notification. Recognition of longer treatment days, as well as effective communication, obtaining 8 hour post infusion PKs can be achieved within the operational hours. Improvement of these later PKs being drawn earlier lead to the potential for feasibility for 10 hours post PKs.

#### 423 IMPROVING CHEMOTHERAPY INDUCED NAUSEA AND VOMITING FOR CARBOPLATIN AUC ≥ 4: ASSESSING CINV GUIDELINE COMPLIANCE

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Category: Symptom Management and Palliative Care

With the re-classification of carboplatin AUC ≥4 from moderately emetogenic (MEC) to highly

emetogenic (HEC) in 2017, assessing our compliance with NCCN CINV guidelines for HEC was identified as a quality improvement project. Chemotherapy induced nausea and vomiting (CINV) remains one of the most feared symptoms associated with cancer therapies. Multiple guidelines exist to promote application of evidence based interventions to minimize CINV. Numerous prior studies have established gaps in compliance with current guidelines with considerable physician practice variation. CMS lists CINV as # 2 of top 10 drivers of avoidable hospital admissions for cancer patients. Appreciating this opportunity to improve the patient experience, our nursing team led an interdisciplinary team to review all chemotherapy careplans containing carboplatin with AUC  $\geq 4$  from 2/7/18–2/7/19 at both campuses of our cancer center. Anti-emetic regimens on Cycle 1 day 1 were assessed for compliance with NCCN guidelines for HEC: 5-HT<sub>3</sub> RA (palonosetron preferred) plus NK 1 RA (i.e. fosaprepitant/oral aprepitant) and steroid (dexamethasone). During this time period ending 2/7/19, 95 patients were treated on C1D1 with carboplatin AUC  $\geq 4$  containing regimen with 39 patients (41%) receiving NCCN concordant CINV anti-emetics. There were 26 chemotherapy careplans with carboplatin AUC  $\geq 4$ ; of these 13 met NCCN recommendations for anti-emetics for HEC. These careplans had been developed and entered into the EMR prior to re-classification of carboplatin AUC  $\geq 4$  as HEC. Beginning in June 2019, all of the carboplatin containing careplans were updated to comply with latest NCCN anti-emetic guidelines. Data from both retrospective analysis with the initial cohort (N=95) and prospective analysis at 3 and 6 month post implementation of updated careplans will include comparison of the number of patients requiring treatment for CINV including unplanned visits for IV hydration in the infusion center and admissions for CINV. Both symptom severity in human costs and financial costs will be compared. The importance of symptom control for patients and their families cannot be overstated. In the case of CINV, while emesis control has been improved with the myriad of medications available, nausea remains, for many, a difficult to control symptom. Compliance with evidence based guidelines may offer the best strategies for improving patient related outcomes.

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## EFFECTS OF PALLIATIVE CARE VIDEO IMPLEMENTATION ON OUTPATIENT CANCER

## PATIENT'S KNOWLEDGE AND PERCEPTION OF PALLIATIVE CARE

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Category: Symptom Management and Palliative Care

Cancer care is not one dimensional; it is multifaceted. Palliative care teams are well equipped to address the many issues that can arise when implemented in a timely fashion. Continued evidence demonstrates that palliative care repeatedly reduces pain, improves symptom control, improves caregiver satisfaction and reduces the cost of healthcare. Unfortunately, most patients are referred to palliative services too late, many within 1–2 months of death, sometimes within the last few days, some not at all. Patients are often misinformed or uninformed about palliative care and the services that it can provide, often delaying or restricting their participation. The purpose of this quality improvement project is to administer the Palliative Care Knowledge Scale (PaCKS) before and after implementing a 4-minute educational video about palliative care for cancer patients in an outpatient oncology setting. Data will be collected from a single outpatient oncology office in the Midwest. A sample population will be obtained through a convenience sampling technique of approximately 75–100 patients, 19 and older, male or female, past or current cancer diagnosis, and who are seeing a practitioner in an exam room over an 8-week period. The Palliative Care Knowledge Scale (PaCKS) is a valid and reliable tool and was chosen to assess patient's baseline knowledge of palliative care. If willing to participate, patients sign a consent and take a pre-survey (PaCKS). Once done they will watch a 4-minute video about palliative care. After watching the video, the patient will take a post-survey (PaCKS) to see if this has increased their knowledge about palliative care services, changed the patient's perception regarding palliative care services, or increased their desire to participate in an outpatient palliative care program. A paired sample t-test will be used to determine if there are differences between the pre and post survey results for each individual participant. Descriptive analysis will be used to describe the demographic information. Data are currently being collected. Pending data results, implementing something as simple as a palliative care video in an outpatient cancer setting could increase patient's knowledge of palliative care leading to a desire to participate in an outpatient palliative care program.



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### **SURVIVORSHIP EDUCATIONAL SERIES FOR YOUNG WOMEN DIAGNOSED WITH BREAST CANCER**

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Category: Survivorship

Women diagnosed with breast cancer before age 45 have numerous unmet survivorship needs including managing early menopause, sex and intimacy, long term effects of treatment and self-care. After identifying these unmet patient needs, our cancer center applied to be part of Living Beyond Breast Cancer's Survivorship Series for Young Women Impacted by Breast Cancer. Our cancer center was 1 of 15 sites that were selected. LBBC recognizes the role Oncology Nurse Navigators (ONN) play in providing education and support to patients in all phases of treatment. The intent of this initiative is to address the unique challenges younger women face as breast cancer survivors. Approximately 12% of our breast cancer patients are under the age of 45. The survivorship series was conducted from March to June 2019. A series of four, two-hour educational workshops, facilitated by the ONN, were offered. Topics included sex and intimacy, early menopause, long-term effects and self-care. Standardized educational materials provided by LBBC were utilized. The ONN collaborated with our multidisciplinary team including physicians, physical/occupational therapists, genetic counselors, registered dietitians and social workers to tailor the series and provide a comprehensive program reflecting the services in our community. Through implementation of this initiative, it was discovered that there is a need to better address the challenges of younger women with breast cancer. The workshops filled an unmet educational need for these survivors, while also creating an opportunity for each of the participants to enhance their own support networks. Additionally it was evident that throughout the series emotional bonds developed between participants. Through these connections, participants provided emotional support to one another, decreasing the sense of isolation that can accompany survivorship. Finally, the program provides a framework to build a more comprehensive educational program for all young cancer survivors. Through the implementation of this program, our team developed enhanced knowledge of the challenges impacting young survivors. The series touched on important

topics, while also connecting young women with peer support. Partnering with a national breast cancer nonprofit expanded our capacity to implement this program. We intend to continue to use this format in 2020 and expand this initiative to women with gynecological cancers as well.

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### **ALL ABOUT ME BOARDS AND THEIR IMPACT IN THE ONCOLOGY POPULATION**

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Category: Oncology Nursing Practice

In an effort to improve the overall patient experience on an inpatient oncology unit All About Me boards were placed in patient rooms to foster communication and relationships between the nurse and patient. The goal the All About Me boards was to help provide an environment where patients felt respected, heard and their most personalized needs acknowledged which would then translate to an overall improved patient experience. A review of the literature to identify best practice for the use of All About Me boards resulted in limited findings. No study was found that examined the impact of All About Me boards specifically on the oncology population. Quantitative and qualitative survey methods were utilized. Qualitative surveys were completed with forty-one participants after the All About Me boards were implemented. Three Press Ganey patient satisfaction measures in addition to one HCAHP measure were retrospectively analyzed using SPSS. Press Ganey patient satisfaction scores were pulled from NDNQI surveys for the time period of twelve months prior to implementation of the All About Me boards and twelve months post implementation. A paired t-test indicated there was a statistical significant difference,  $p < 0.003$ , between pre and post implementation data. Qualitative survey results presented an overall theme of improved patient experience. The participants noted that the All About Me boards helped them feel heard, acknowledged, and seen as an individual. The study concluded that the All About Me boards were beneficial and improved the overall patient experience in the oncology population. The findings provide insight into promoting patient centered care while improving patient satisfaction. The implementation of these boards could be generalized and not only used on an inpatient oncology unit but also in any outpatient oncology setting. Further education for nursing staff on completion of the boards for those

patients who were unable to physically access the boards should be considered. With the addition of the All About Me boards in the oncology population, the overall aim and focus can be shifted back to the patient and their most specific needs to provide more comprehensive, patient-centered care.

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### **ORAL CHEMOTHERAPY EDUCATION: NEW APPROACH WITH LEAD EDUCATOR**

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Category: Patient Education and Safety

As more chemotherapy treatments move to oral therapy, the need for efficient patient education and follow up increases. At our cancer center, clinic nursing staff are responsible for this education and follow up. With the workflow process that were in place the clinic nurses did not have dedicated time to provide education and follow-up related to oral chemotherapy. This led to patient complaints, errors and staff turnover. One clinic looked at the current workflow process and revised their workflow to enhance the education and follow up of patients receiving oral chemotherapy. The purpose of this project was to provide a standardized process for oral chemotherapy education and follow-up. A role was created for one RN to take the lead on the education and follow up of all oral chemotherapy patients. This RN developed a patient calendar and tracking tool to help with medication ordering, appointments, and follow-up phone calls. All patients received written and verbal information as well as her contact information. She works closely with the physicians to ensure orders were written and documentation was completed for the medication. Financial and prior authorizations is a large part of the oral chemotherapy burden. She became the expert on financial support, prior authorization and communication with specialty pharmacies to prevent interruptions in care. The new workflow process was developed and rolled out January 2019. The oral chemotherapy lead RN implemented the standardization of education and follow-up for all oral chemotherapy patients. The other clinic RNs are still engaged in the process and help with education, but with one RN taking lead, they have expressed how it has minimized the stress of keeping track of all the

patients on oral chemotherapy, thus allowing them to focus on other aspects of patient care. Patients have expressed increased satisfaction with education and follow up. Communication with specialty pharmacy and insurance companies is more streamlined therefore eliminating interruptions in patient care. As the landscape of cancer therapy continues to change with more oral agents, the role of the clinic nurse continues to expand. Patient education, follow-up and communication with pharmacies/insurance companies is needed to prevent interruptions in patient care. A standardized approach to help navigate this complex treatment is needed to ensure safe patient care.

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### **IMPROVING PATIENT EDUCATION ON MEDICATION SIDE EFFECTS**

Mary Spears, CNL, MD Anderson, Houston, TX

Category: Patient Education and Safety

Understanding medications and side effects is an important question included in national ranking Press Ganey survey that patients fill out after a hospital stay. Nurses often given this information in many different formats. Verbal, written handouts, videos, pharmacy leaflets and medication labeling are some of the multiple ways patients are taught. Assessment of our unit showed consistent education that is easy to read worked best for our patient population. Press Ganey scores for February 2018 through April 2018 showed patient's ranked their understanding of medications to be below 4% for The Head and neck unit wanted to increase patient's understanding of their medications and side effects to increase compliance with reporting side effects and managing the patient's education consistently. Our goal of this quality improvement process was to have HCAHP scores above 75% for the next Quarter. Using a one page written patient education handout that summarized many possible classes of medications and their associated side effects, the team organized a plan that ensured each patient received this handout at the beginning of their stay and the nurses were to refer to the handout when giving any new medications. Using a highlighter to mark the patient's medications they were receiving the verbal education was reinforced by the consistent handout that the patient kept beside their bed. Leadership continually assessed the patient's understanding of this handout as well as monitored the process on the unit on a daily basis. After one month of implementing and monitoring, Press Ganey HCAHP scores improved to above 90% and sustained improvement above 75% for next 3 quarters. Head and

neck was commended for their work in improving patient safety through medication education. Opportunities noted were readiness of the nurses to include the formal education process in their daily routines, patient's visual deficits, families understanding that the handout was to remain at the patient's bedside, and opportunity to include physicians in the discussion of patient's medication education. Continued efforts to keep patients and families aware of their medications and the side effects have improved the patient safety of the head and neck oncology cohort.

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### **NATIONAL EARLY WARNING SCORING SYSTEM FOR MALIGNANT HEMATOLOGY POPULATIONS**

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*Category: Patient Education and Safety*

Identification of clinical deterioration in patients with altered immune systems is challenging due to the baseline variations in standard monitoring parameters. These patients are highly susceptible to infection and rapid detection. Timely treatment is critical. It was identified that the systemic inflammatory response syndrome (SIRS) criteria were overly sensitive in detecting clinical deterioration the malignant hematology and cellular therapy (HMCT) population. This creates inconsistency in timely activation of rapid response team (RRT) with patient decline. The aim of this project is to evaluate the implementation and use of the National Early Warning Scoring (NEWS) system in HMCT patients. The NEWS system was implemented in March of 2017. The registered nurse calculates the NEWS score from the vital signs and assessment and implements actions which may include activation of the RRT and assessment of patient for transfer to intensive care unit (ICU). A RRT activation would occur at a NEWS score equal to or greater than 7. Use of the NEWS tool has demonstrated success in identifying patients who are experiencing clinical deterioration and improved response time to initiation of additional evaluation and treatments. A statically significant decrease in the mean time between patients meeting a NEWS score of 5 or greater and activation of RRT was noted in the post-implementation group. An increase in frequency

of escalation of care to the ICU for patients with multiple RRT activations during admission was statistically significant ( $U=296$ ,  $p=0.014$ ,  $r=0.31$ ). Use of the NEWS scoring tool results in early and consistent intervention with clinically deteriorating patients. The appropriate escalation of care to ICU setting and timely intervention with declining patients to prevent unnecessary ICU transfer is now expected in these highly vulnerable patients. Goals of care conversations with the family and interprofessional team can now occur at critically important times. The Royal College of Physicians created the NEWS tool and the original use was in patient populations presenting to the Emergency Departments. The NEWS tool was evaluating general floor vs. ICU status. The NEWS tool has not been studied in the patient population of malignant hematology and HMCT.

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### **TEAM CHECKLIST PILOT TO IDENTIFY BEDSIDE NURSE BARRIERS TO PARTICIPATING IN PICC INSERTIONS AND BEST PRACTICE RECOMMENDATIONS**

**Jennifer Sullivan, MSN, RN, APRN, ACNS-BC, University Hospitals Seidman Cancer Center, Cleveland, OH; Annette Courtland, RN, CN, VA-BC, University Hospitals Cleveland Medical Center, Cleveland, OH; Alicia Williams, BSN, RN, VA-BC, University Hospitals Cleveland Medical Center, Cleveland, OH**

*Category: Oncology Nursing Practice*

Peripherally Inserted Central Catheters (PICCs) are frequently placed on oncology inpatient divisions. The Joint Commission and Centers for Disease Control and Prevention recommend using a second person during non-emergent line insertions to ensure critical safety and infection control steps are maintained. However, implementation of the checklist on oncology floors brought up many concerns regarding RN workflow, procedure time and interruptions. While a two-person team approach is best practice for inserting central lines, our radiology staffing does not accommodate a two person PICC team during line insertions and bedside nurse workflow may interfere with their ability to actively participate in 30-45min procedures on inpatient oncology divisions. The purpose of this pilot project was to determine issues and barriers facing inpatient nurses attempting to comply with best practice standards for two person central line insertions. Four inpatient units, with high volume of PICC placements, participated in the pilot (bone marrow transplant, medical oncology, neurology and transplant). Prior to roll-out, pilot division nurses

viewed a 15 minute video showing bedside nurses' roll in insertion. Data was collected on all PICCs placed on pilot divisions during a two week period. To help decrease wait times, PICC nurses phoned divisions prior to their arrival. The audit tool was completed at the end of each procedure by both the PICC nurse and bedside nurse. Fourteen audits (11 from oncology floors) were collected and 13 lines were placed during the pilot. Eleven lines (85%) were placed with a second observer. On average, PICC RNs waited 14 minutes for RNs to join them, even when floors were notified prior to PICC RN arrival. The average length of the procedure was 35 minutes. Half of the RNs (6/12) were interrupted during the procedure, one was interrupted multiple times and one was interrupted so early only the patient verification was completed. RNs identified a second RN (6) or charge RN (4) as the staff member they handed off too during the procedure. Staff interruptions and procedure length of time are major barriers to successful engagement of bedside nurses in PICC placement procedures. However, pre-notification by the PICC team, lower nurse to patient ratios, and handoff to another team member were key determinants for nurses who were successful at remaining at the bedside during the procedure.

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### HOW TO PREPARE A MULTI-SITE PRACTICE FOR A SUCCESSFUL QOPI (QUALITY ONCOLOGY PRACTICE INITIATIVE) QCP (QOPI CERTIFICATION PROGRAM) SITE VISIT

**Chris Sydenstricker, RN, BSN, MBA, CPHQ, University Hospitals Cleveland Medical Center Seidman Cancer Center, Cleveland, OH**

**Category:** Professional Development

Striving to meet compliance and maintain QOPI (Quality Oncology Practice Initiative) QCP (QOPI Certification Program) is challenging for multi-practice sites. Seidman Cancer Center developed multidisciplinary reporting structure to review, develop and implement processes to maintain QOPI Certification. Committees are overseen by the Ambulatory Quality Coordinator. This structure keeps all disciplines engaged and informed. QOPI recertification visit, May 2019 was successful with minimal findings requiring action plans. QOPI Task Force: Reporting structure for QOPI Subcommittees includes Ambulatory directors, Site managers, Cancer Registry, Clinical trials, Pharmacy manager, Medication Safety officer, EMR liaison and Nurse educator. They review standards, develop policies and workflow guidelines, and educate staff on

policy updates. QOPI Pharmacy: (a) Co-lead by Medication Safety officer and Ambulatory quality coordinator, (b) system standardization of pharmacy standards, (c) development of Pharmacy Checklist in electronic medical record, (d) system competencies for pharmacy and pharmacy tech staff, (e) par levels for extravasation medication, (f) standardize drug labeling process. QOPI Champions: (a) Committee of Infusion nurses, Nurse Partners, Staff education and EMR liaison, (b) develops workflow and policies from staff perspective, (c) provides peer to peer education of Standards, (d) develops patient education and assessment for chemo patients, and (e) conducts QOPI Tracers to educate and prepare for QOPI visit. QOPI Physician Liaison: (a) Meets with Ambulatory director and quality coordinator to review physician standards, (b) attends QOPI Task Force, (b) liaison with physicians, administration and disease team leaders, and (c) any additional needed support. QOPI Abstraction team: (a) Works with Physician liaison, Ambulatory director and ambulatory quality coordinator to review QOPI data elements, (b) completes annual data abstraction to maintain certification, and (c) complete full chart review every 3 years. QOPI site visit preparation: (a) Updated and developed SOPs—March 2019, (b) complete staff education with QOPI Tracers and educational staff meetings—April 2019, and (c) development of paper and electronic staff education materials for reference during QOPI visit. Evaluation—QOPI data abstraction for recertification 2018 score 91%. May 2019 QOPI QCP survey met 26 of 28 standards. Onsite surveyor identified many best practices. Recertification October 2019. Using multidisciplinary structure of staff and leadership increases engagement, physician and leadership support. Journey to QOPI Certification was rewarding. Seidman is pleased to share multi-tiered approach to readiness at ONS.

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### IMPROVING COMMUNICATION OF DO NOT RESUSCITATE ORDERS ON THE UNIT LEVEL

**Mary Tanner, RN, Duke Raleigh Hospital, Raleigh, NC; Cameron Carr, BSN, RN, Duke Raleigh Hospital, Raleigh, NC; Susan Bruce, MSN, RN, OCN®, AOCNS®, Duke Raleigh Cancer Center, Raleigh, NC**

**Category:** End of Life

Our community-based oncology unit serves a diversity of oncology patients including post-surgical care, patients receiving chemotherapy, symptom management, palliative care, and end of life care. There has been an increasing number of recent events that highlighted the need to implement identification of our DNR (do not resuscitate) patients on comfort care to

the hospital staff. Our current policy does not indicate how DNR status is communicated, leaving many staff unaware of any patient's code status. This uncertainty could lead to tragic outcomes. The purpose of this project was to improve the communication of DNR orders for patients and staff on our unit. An initial survey was conducted asking the oncology unit staff for feedback about the communication of DNR status for comfort care patients. Research was done by a multidisciplinary team that benchmarked the best practices of other hospitals. Based on the survey results and research, there was room for improvement. We plan to place the picture of a dove outside of the patient door to indicate a DNR patient on comfort care. The hospital staff including physicians and other providers will be educated on this communication of DNR status. The survey indicated a lack of identification of DNR patients on comfort care on our unit. Unless a staff member worked with that specific patient, most were unaware of which patients were DNR on comfort care. The survey also demonstrated that non-primary medical team had no knowledge which of our patients are DNR on comfort care. Our unit serves a wide variety of oncology patients during many phases of their cancer journey, which takes them to different units in the hospital. This intervention will improve communication about DNR status. If this intervention is success, the communication will be implemented hospital-wide. This improved communication will help staff know in the event of an emergency, which patients are not to be resuscitated. This process can be easily replicated in any facility for a minimal cost investment.

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### **THE HEMOVIGILANCE UNIT: REAL-TIME BLOOD TRANSFUSION MONITORING AND CLINICAL SUPPORT**

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Category: Patient Education and Safety

Underreporting of transfusion reactions presents a profound risk to patient safety. A multi-center study found reactions should occur in 2.13% of transfusions. Comprehensive cancer centers on average report

reactions at an approximate rate of only 1%. According to the World Health Organization, approximately 76% of transfusions in developed nations support oncology patients; therefore, under-recognition of transfusion reactions disproportionately affects this population. The inability to mount robust immune responses among cancer patients may explain fewer reactions to blood products, which warrants further evaluation. The Hemovigilance Unit (HUV) aims to capture data on transfusion reactions occurring in oncology patients to establish accurate rates in this population and to deliver management for patients experiencing a reaction in real time as opposed solely to analyzing retrospective data. The HUV is a novel clinical service collaboratively designed by Nursing and Transfusion Physicians that provides 24/7 real-time centralized monitoring of patients receiving a transfusion. The HUV's tools extract discrete data fields from our electronic health record (EHR) (e.g. increase in temperature, decrease in blood pressure, nurse documented symptoms) that may suggest a potential transfusion reaction. The weighted data fields contribute to a "transfusion reaction risk score". Registered nurses monitor a list of all patients receiving active transfusions and perform real time chart reviews, prioritizing their reviews based on the risk score. In the case of a suspected transfusion reaction, a transfusion specialist advanced practice provider from the HUV will be deployed to the patient's location to support the primary team in managing the reaction, direct appropriate work-up, and collect consistent data on the reaction. Recognition and reporting of transfusion reactions have increased since the HUV's implementation. Characterization of reaction type, severity, and imputability provides foundational knowledge of transfusion reactions in the oncology patient population. Clinicians have 24/7 support available immediately through a transfusion hotline. Additionally, HUV staff support improvement in real-time documentation compliance by monitoring the first 15 minute and hourly vital signs and engaging with frontline nurses to ensure timeliness of monitoring. Implementation of an HUV enhances patient safety, improves documentation compliance, and provides support for clinical staff. Real-time monitoring of blood product transfusions with a centralized HUV promotes early intervention of blood transfusion reactions and ensures no potential transfusion reaction goes unrecognized.

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### **HOW DOES AN EDUCATIONAL VIDEO ON SURVIVORSHIP CARE AFFECT THE**

## KNOWLEDGE AND PERCEIVED COMPETENCE OF AN ONLINE CANCER COMMUNITY WITH LYMPHOMA SUPPORT GROUPS?

Latoya Townsend-Nugent, MS, APRN, ANP-BC, Molloy College, Rockville Centre, NY

Category: Survivorship

The United States has over 16.9 million cancer survivors. Previous research has identified gaps in cancer survivors' knowledge of treatment received and the potential late and long-term side-effects of such cancer treatment. Survivorship care plans (SCP) were designed to improve survivors' awareness of cancer treatment received and knowledge of follow-up care recommendations. However, in addition to SCP, supplemented interventions to further advance survivors' knowledge-based regarding late and long-term side-effects of cancer treatment is warranted. A video approach is an effective intervention in delivering patient education. This Doctor of Nursing Practice (DNP) project purpose is to 1. Determine the baseline knowledge level of survivorship care regarding late and long-term side-effects of cancer treatment in a group of lymphoma survivors who participate in a nationally recognized online cancer support group. 2. Evaluate the effect of a short online educational video on the knowledge of lymphoma survivorship care as it relates to late and long-term side effect of cancer treatment. 3. Determine the perceived competence of the participants' knowledge of survivorship care about late and long-term side effect of lymphoma treatment. 4. Identify additional educational needs of lymphoma survivors for future survivorship care programs. The project design is a pretest/posttest design. The project will be presented in the form of a DNP project survey to an online cancer community with public lymphoma support groups. The survey includes consent form, demographic, pre-test of survivorship care and lymphoma treatment side effects, educational video, posttest of survivorship care and lymphoma treatment side effects, perceived competence scale (PCS), and an evaluation form. Descriptive statistics will be used to analyze quantitative data. Paired t-test will be used to evaluate pre-test and post-test of survivors' knowledge of survivorship care and lymphoma treatment late and long-term side effects. Qualitative data will be obtained from the participants' evaluation form. The score from the PCS will be appraised. The desired outcome is that the educational video will lead to an improvement of the baseline knowledge among participants regarding survivorship-care and influence their perceived

competence, as to enhance self-efficacy to recognize late and long-term side-effects of cancer treatment. Innovation: Social media- educational video approach.

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## NURSES' ATTITUDES AND KNOWLEDGE TOWARDS SICKLE CELL DISEASE

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Category: Oncology Nursing Practice

The care of sickle cell patients at UPMC Shadyside has recently transitioned from medical units to oncology units in preparation for potential upcoming transplants and consolidate service lines. Oncology nurses are experts in cancer pain management, however have little to no experience managing sickle cell pain and the sickle cell population. The literature discusses the impact that a negative perception about sickle cell disease and bias can have on the patient as well as potential for clinician burnout and decreased empathy from the nurse. The purpose of this quality improvement project was to examine the perceptions of registered nurses about sickle cell patients and whether an educational intervention can positively impact their perception of this unique patient population. A 31-item survey and demographics were utilized to measure the effectiveness of the intervention. The intervention was a 1 hour educational session that discussed the pathophysiology of sickle cell disease, complications, treatment, nursing care and psycho-social components of the disease. We provided the survey immediately pre and post intervention. Our sample size included 148 responses for the pre-survey and 136 responses for the post and represented nurses from our Medical Oncology, Hematology Oncology, and Bone Marrow Transplant units. Our preliminary data evaluation shows that a simple educational intervention is effective in improving the knowledge and attitudes of oncology nurses towards people living with sickle cell disease. These findings are especially important in today's American climate to help us better understand the nurses' perception of people living with sickle cell disease and how we can improve those perceptions, if they are potentially negative. With this information, we are able to better understand the perceptions of nurses about sickle cell disease, the impact of an educational intervention, and open areas for subsequent research based on cultural competence.

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### THE GOALS TO DISCHARGE CHECKLIST: INCORPORATING THE PATIENT'S VOICE IN THE DISCHARGE PROCESS

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Category: Coordination of Care

Fast track or Enhanced Recovery after Surgery (ERAS) pathways promote an earlier return to function with shorter lengths of stay (LOS). Shorter LOS could lead to feelings of unreadiness and miscommunication. Patients need a step-by-step guide of milestones needed to be discharged. A “goals-to-discharge checklist,” when implemented early, and used collaboratively by the patient, the nurse, and the surgical team, can serve as a guide to the progress being made with respect to discharge planning and as a communication tool. Inadequate discharge planning can lead to increased numbers of emergency department visits and adverse events. Failure to communicate the goals of care and the discharge process with the patient and the family leads to patient and family stress, nurse stress, patient safety errors, and excessive lengths of stay. A “goals to discharge checklist” implemented early in the post-operative stay can ensure a safe patient discharge. This quality improvement project, evaluated discharge times and LOS of colorectal-oncology, ERAS patients before and after the implementation of a “goals to discharge checklist.” The setting for this project was a large metropolitan cancer treatment institution. A convenience sample of 60 men and women undergoing colorectal oncology surgery received a bedside checklist on postoperative day zero or one between August and September 2018. The checklist included patient required goals following surgery, such as tolerating diet, pain control, ambulatory status, and teaching needs. Discharge time and LOS was recorded on patients who completed the intervention. The intervention group's results were compared to 60 patients following colorectal surgery between August and September 2017. Average discharge time did not show any significant difference between the two groups. However, 40% of patients left before noon compared to only 10% prior to implementation. The intervention group had a mean LOS of 2.66 days compared to the mean LOS of the control group of 3.13 days. This was statistically significant change in LOS ( $p < 0.05$ ). The “goals to discharge checklist” improved LOS and compliance to an ERAS pathway which ultimately increased bed turnover. Additionally, the checklist can be used to improve interdisciplinary communication and

provide a patient-centered discharge process allowing patients to remain involved in their care and verbalize the needs they have prior to going home.

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### UTILIZING A NURSE NAVIGATOR TO DECREASE NO SHOW RATES IN A HEMATOLOGY CLINIC

Cheryl Turner, BSN, RN, OCN®, University of Rochester Wilmot Cancer Center, Rochester, NY

Category: Coordination of Care

Across diagnoses patients (pts) have varying no show (NS) rates for provider visits. There are differing reasons pts give for not coming to visits including forgetting about the appointment and the length of time from referral to appointment. The benign hematology department at Wilmot Cancer Center (WCC) at University of Rochester has a considerable NS rate with referral date to appointment time averaging 6 weeks. Human reminder calls are more effective than automated reminders. WCC initiated a Hematology Nurse Navigator (NN) role in January 2019, covering benign hematology. One goal is to maximize New Patient Visits (NPV). The purpose of this project was to determine if benign hematology pts with a high no show rate ( $>10\%$ ) who are contacted by a NN prior to a scheduled NPV are more likely to attend visit than before NN position was implemented. NS data was obtained for June 2018 through March 21, 2019 from EPIC for the benign hematology department at WCC. From March 21, 2019 going forward pts with  $>10\%$  NS rates were prospectively identified from EPIC. Starting March 21, 2019 the NN contacted all identified patients either by phone and/or message through MC prior to NPV. NS rates of all NPV are tracked for benign providers to determine if NS rates improved. The NS rate (NS pts/all NPV as %) prior to implementing the phone call intervention was 11.88% to 18.42%, average 15.38%. The NS rates for the five months after implementation were 5.55% to 12.21%, average 9.04%. The decrease in NS rates is statistically significant with  $f$  ratio of 24.27266 and a  $p$  value  $< 0.01$ . Decreasing NS rates continues to be an ongoing effort at WCC. The current improvement is appreciated but could be expanded. Other NS predictive measures could be utilized to address barriers to maximize NPV as well as follow up visits. It would also be more effective financially to utilize a secretary to make the phone calls instead of using nursing time. It is also preferable to call all patients with a NPV, not just those with high NS rates. Future research might be conducted regarding diagnosis specific NS rates with more of an effort made to combine clinic visits across

services to increase the likelihood that patients will attend visits.

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### **ASSESSING THE SUCCESS OF AN ADMISSION GUIDANCE TOOL IN IMPROVING COORDINATION OF CARE BETWEEN INPATIENT STAFF AND RESEARCH COORDINATORS FOR CLINICAL TRIAL CAR-T PATIENTS**

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Category: Oncology Nursing Practice

In 2017, our cancer center opened its first CAR-T cell clinical trial. This was our first study requiring a significant in-patient component, with many protocol-directed assessments to be obtained during mandatory hospitalizations. During this trial it was noted that the number of missed assessment protocol deviations was significantly higher when compared to our institutional average. Additionally, inpatient staff identified a decrease in self-reported proficiency while caring for patients on this study. A literature review revealed that large cancer centers often standardize processes and CAR-T patients (including research subjects) are cared for by a specialized subset of staff. Because we are a smaller institution, we were unable to form a dedicated cellular therapy team to improve coordination of patient care. Instead, we worked with key members of the inpatient staff and leadership to develop an Admission Guidance Tool (AGT) for our CAR-T clinical trial patients. Our goal was to improve in-patient staff self-reported proficiency while caring for clinical trial Car-T patients and to lower the incidence of protocol deviations. The AGT included an order template detailing protocol-required nursing, physician and pharmacy orders, and study required assessment timepoints. Our advanced practice providers used the template for electronic documentation and order entry. A printed copy was placed into a patient-specific binder on the inpatient unit. Daily tabs were added to the binder that contained protocol assessments (Ex: neurotoxicity screenings, vital sign source documents, required research lab tubes and requisition forms). We included a concise, protocol-specific algorithm for managing CAR-T related Cytokine Release Syndrome and neurotoxicity. Finally, we provided information on grading

each event and a notification schema for toxicity management. After implementing the AGT, we had a 31.25% overall reduction in the number of missed assessment protocol deviations. When the length of hospitalization per patient was factored in, we found a 36.1% reduction of deviations per admission day. Similarly, 83.3% of inpatient nurses reported feeling comfortable caring for CAR-T clinical trial patients compared to 16.7% prior to implementation of the AGT. Based on its success, the AGT is used for all clinical trials patients requiring hospitalization in our organization.

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### **CANCER CENTER USES PROCESS IMPROVEMENT TO ENHANCE TRIAGE AREA**

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Category: Oncology Nursing Practice

The Cancer Center at Hillcrest Hospital sees an upwards of fifty patients on a daily basis in the triage area. The triage area is the starting point for all daily treatment patients. A large influx of patients during peak hours of operation resulted in increased wait times, a lack of patient privacy, patient and caregiver dissatisfaction, and potential treatment delays. Based on HCAPS scores in the triage area, patients cited confusion and uncertainty about treatment plans. A review of current conditions showed possible barriers and time frames that needed immediate evaluation. The Continuous Improvement (CI) Team reviewed the present triage process and identified roadblocks in order to establish a more consistent and faster throughput process. Barriers were analyzed, countermeasures were implemented, and processes trialed, and evaluated. A standardized approach to patient treatment scheduling helped create a seamless transition for patients through the triage area and a tool was created as guidance for schedulers. The process revisions were enacted and utilized daily, resulting in a decrease of 18% patients scheduled in the triage area during peak hours. Thus enabling patients to move through the clinic and infusion area all while keeping scheduled clinics running promptly. In order to maintain time benefits for our patients and the Cancer Center staff, scheduled appointments are monitored monthly and a report is generated for the CI Team as well as administration.



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### **REDUCING CLABSI RATES IN ONCOLOGY AND BONE MARROW TRANSPLANT**

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Category: Oncology Nursing Practice

As some of the most susceptible patients in the hospital, oncology and especially bone marrow transplant patients had the highest rate of central line associated bloodstream infections (CLABSI) in the hospital. With the risk of mortality being as high as 40%, the need for dramatic change was necessary. Department and hospital leadership recognized the issue and agreed to provide whatever assistance necessary to improve CLABSI rates in this population. A multifaceted approach to CLABSI reduction in the oncology population was developed. The purpose of this project was to reduce CLABSI rates by 50% in the Oncology and Bone Marrow Transplant patient population by 2019. The focus was threefold; to update the central line management policy, provide staff education, and update department cleaning practices. In the initial phase, the policy was updated with subject matter experts at the organizational level to meet current evidenced-based practice standards. The second phase involved the Vascular Access Team. Using the updated policy, the team created a mandatory continuing education class that all oncology and transplant nurses were required to attend, annually. The class focused on the key areas of central line maintenance; scrub the hub, dressing change, lumen patency, and line necessity. During the class, return hands on demonstration of each area was required. CLABSI prevention posters and newsletters were in each unit and presentations at staff meetings included a focus on oral care and hygiene policies. Finally, cleaning practices by Environmental Services consisted of daily cleaning of patient care areas in these departments. The organization also purchased a UV light that was utilized in the departments. The interventions proved successful. There was a reduction of nearly 50% from 2017 to 2018 in CLABSI, and by 3rd quarter of 2019, it was down another 50% from 2018. While the interventions were intended to decrease CLABSI rates, there was also a significant decrease in mucosal barrier injury bloodstream infection (MBI) rates as well (73%). Intense analyses were performed on each CLABSI and MBI case to determine opportunities for continued improvement. When inconsistencies or opportunities were discovered follow-up consisted of coaching, remediation, and on-going evaluation of staff involved. Changing

the practice and culture associated with central lines proved beneficial and led to better patient outcomes for this patient population.

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### **THE POWER OF MULTI-DISCIPLINARY TEAMWORK IN ROLLING OUT A SAFE HANDLING PROCESS FOR ONCOLOGY HAZARDOUS DRUGS ACROSS AN INTEGRATED HEALTHCARE DELIVERY SYSTEM**

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Category: Oncology Nursing Practice

As with many health care systems, different hazardous drug safe handling policies existed at our multiple facilities. The increasing need for a standardized nursing policy was identified as new cancer and infusion departments merged into the system. At the same time, ensuring compliance with USP 800 and the ASCO/ONS administration guidelines (2016) was addressed for each of the 13 departments. Department locations include inpatient and outpatient departments with outpatient departments being a large infusion center, stand-alone sites, or part of critical access facilities. The purpose of this project is to improve safety for oncology nurses who regularly handle oncology hazardous drugs and standardize the process across an integrated health care system. The oncology nurse educator lead the project, aligning the policy with ONS standards. Oncology operations nurse team members, including pediatrics, supplied input on workflow for individual departments. The core work group also included the system safety manager (verifying OSHA compliance and securing products to achieve compliance), pharmacist (aligning pharmacy's system policy with nursing and supplying expertise on USP 800 standards), and environmental services manager (clarifying EVS responsibilities and limitations and aligning EVS policy and education). The need arose for the addition of a supply chain management representative, nursing practice specialist, and facilities staff. Implementation was complex requiring a multi-disciplinary team to address all aspects of safe handling by all employees who are regularly exposed to hazardous drugs. In person work meetings and product demonstrations, emails, and phone conferences kept the group in communication and the project moving forward. Communication,

coordination, and education are key along with securing input from all sites. Expenses must be considered. Accountability and enforcement of the new policy and process are necessary for successful implementation. Barriers include product availability, concern with expenses, and the impact on non-oncology nursing departments. Buy in has been achieved from all stakeholders with in and outside of the service line. Education will be created for all oncology nurses and mandatory completion will be required, prior to roll-out of the policy. Compliance with PPE use, engineering controls, and completion of medical surveillance will be audited.

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### **NURSE-DRIVEN PROTOCOL AND ACUITY TOOL IMPLEMENTATION OPTIMIZES PATIENT SAFETY IN AN ADULT ONCOLOGY URGENT CARE CLINIC**

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*Category: Oncology Nursing Practice*

Adult oncology urgent care clinics led by Advanced Practice Practitioners (APPs) provide patients with access to life-saving medical treatments. Specifically, the Clinical Assessment and Rapid Evaluation (CARE) Clinic was developed at a large academic medical center to intervene and perform timely symptom management for patients undergoing anti-cancer treatments. One primary goal of the CARE Clinic is to meet the Centers for Medicare and Medicaid Services (CMS) objectives by managing preventable symptoms in an outpatient clinical setting. Nurses collaborate with the APPs to deliver high-quality care for this vulnerable patient population, and identified opportunities for improvement to eliminate nursing process errors, primarily lab delays. The purpose of creating a nurse-driven CARE Clinic Protocol and Acuity Tool was to provide nurses with guidelines to safely manage patient care. Patients requiring symptom management in the CARE Clinic experienced delays in treatments. Baseline data showed that 28% of patients (n = 256) suffered lab collection delays. Lags in lab results contributed to extended patient visits in the clinic and to the potential for delays in essential treatments, including the administration of antibiotics. Variances in nursing communication and patient care were also demonstrated by inconsistent documentation, vital sign monitoring, and discharge education. A nurse-driven Quality Improvement (QI) project was designed to mend process gaps. A CARE Clinic protocol implemented new and measurable

safety interventions, such as collecting labs within a specified time frame. An Acuity Tool was also constructed to measure staff to patient ratios. These innovative methods, combined with the formation of an integrative Electronic Health Record (EHR) tool, provided CARE nurses with access to medical orders and the appropriate tools to quickly intervene for acutely ill patients. Post-intervention data substantiated a 46% improvement in lab collection. Surveys of referring oncology clinics were obtained prior to and post-interventions. Oncology clinic nurses reported an 8% increase in patient access to the CARE Clinic. These results testify to increased patient access to life-saving treatments, reduced length of patient stay, and potential for decreased patient morbidity. Optimizing nursing's scope of practice is cost-effective and supports confidence among patients, nurses, and providers. Nurse-driven strategies such as acuity tools and protocols, utilized throughout oncology urgent care centers, offer innovative and evidence-based practice solutions, and optimize patient safety.

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### **ACHIEVING A SIGNIFICANT REDUCTION IN FALLS WITH INJURY ON A HEMATOLOGY/HEMATOPOIETIC STEM CELL TRANSPLANT UNIT**

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*Category: Patient Education and Safety*

A patient fall is defined as an unplanned descent to the floor with or without injury to the patient (per the Center for Medicare & Medicaid Services or CMS). Falls & falls with injury contribute to death & harm, of which lead to increased health care utilization. Patients with hematological malignancies are at increased risk for falls & falls with injury due to their prolonged immunocompromised & thrombocytopenic state. A significant increase in our falls with injury rate was observed in fiscal year 2018 with a sudden spike in June of 2018 on our in-patient hematology/H SCT unit. Our unit-based fall prevention committee was immediately tasked with performing a root cause analysis, develop an action plan, & find solutions to reverse this trend. A fall prevention bundle was developed by our hospital's fall oversight committee & an audit tool was developed. Every night, the charge nurse would round on every patient intently focused on those patients who were identified as high-fall risk per

the Morse scale. Staff, patients, and their loved ones received comprehensive education regarding all the targeted practice interventions, supplies, rationales, documentation, & policy changes. Additional supplies (such as bedside commodes, hooks for accessible gait belt placement in every room, fall risk signage, & fall safety non-binding white-board contracts) were purchased to meet the ↑ needs. After a fall would occur, the nursing staff would debrief together & complete a post-fall huddle form for improved tracking. A significant reduction in our falls with injury rate (compared to the previous FY data) was observed. FY2018 rate of injury falls increased by 145% (0.31 up to 0.76). FY2019 rate of injury falls decreased by 70% (0.76 down to 0.23). More importantly, the actual raw number of falls with injury in FY2019 plummeted to less than that in the previous three years. This project was successful because the interventions were clearly defined, patient-centered, & consistently implemented with both individual & collective accountability. This audit tool, derived from our hospital-based fall prevention bundle based on the Morse scale, depicts a practical model that can be adopted by other health care organizations to reduce these high-impact safety measures in this challenging patient population.

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## RESEARCH

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### EXPLORING FINANCIAL HARDSHIP AND QUALITY OF LIFE IN PATIENTS WITH ADVANCED CANCER IN THE AMBULATORY PALLIATIVE CARE SETTING

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Category: Palliative and Psychosocial Oncology Care

Cancer patients are experiencing increasing financial hardship (FH) and associated negative health outcomes as cancer care costs rise. Previous FH studies have neglected patients with advanced cancers, impeding vital communication about how FH impacts patients'

wellbeing and goals of care. The purpose of this study is to describe FH and explore its relationship to quality of life (QOL) in patients with advanced cancer receiving ambulatory palliative care services. This ongoing, cross-sectional, descriptive pilot study of adults with advanced cancer is recruiting from two ambulatory palliative care clinics serving rural and urban communities in the Southeast. We assess subjective and objective FH (COmprehensive Score for financial Toxicity [COST; 0-44, lower=worse] and Medical Expenditure Panel Survey Cancer Supplement); QOL (RAND SF36 [eight 0-100 scales, lower=worse]); symptom burden (PRO-CTCAE [0-4, none-very severe]); and socio-demographic and clinical characteristics (self-report and medical record review). We computed descriptive statistics to characterize the sample and describe FH. We ran Pearson product-moment correlations to determine relationships between FH and QOL. The average participant (n=50) age was 56.1 years (SD=11.6). Most were female (65%), White (64%) or Black (32%), married (50%) or divorced (24%), and had a broad range of educational backgrounds and cancer diagnoses. Median time since cancer diagnosis was 35 months (IQR=58.5-8.5). ECOG performance status was <1 for most (74%). Almost half (48%) identified themselves as their primary caregiver. Highest mean symptom severity scores were for pain (2.3, SD=1.0) and fatigue (2.1, SD=1.1). The mean COST score was 16.0 (SD=10.4). 58% had some (n=25) or extreme (n=4) difficulty paying for basic needs. 28% (n=14) incurred family debt due to cancer. Lowest mean QOL scale scores were for role limitations due to physical (21.4, SD=35.4) and emotional (33.3, SD=40.4) problems. A weak positive correlation was found between the COST subjective measure of FH and the QOL Role Limitations Due to Emotional Problems scale ( $r = .282$ ,  $n = 50$ ,  $p = .047$ ). High FH, low QOL, and moderate pain and fatigue scores demonstrate the need for continued clinical support for and research among patients with advanced cancer. Data support links between FH and QOL role limitations. Larger, longitudinal studies are needed to fill research gaps about how FH affects QOL in patients with advanced cancer.

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### EVALUATING SLEEP QUALITY AS A PRELIMINARY OUTCOME OF BREATHE EASIER: A MINDFULNESS-BASED INTERVENTION FOR SURVIVORS OF LUNG CANCER AND FAMILY MEMBERS (DYADS)

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**Category: Survivorship**

Improvements in early detection and curative therapies have led to increased numbers of long-term survivors of non-small cell lung cancer (NSCLC). Improving the quality of life of survivors requires attention to persistent, burdensome symptoms, including sleep quality. This study explored the effect of a Breathe Easier intervention on self-reported sleep quality and quantity in early-stage (I-IIIa) survivors of NSCLC and their family members (together, forming dyads). The study employed a prospective, one-group, repeated measures design. Two cancer survivors and 30 dyads (N=62), each composed of the survivor and family member, were recruited from two community cancer programs in the Southeastern United States. Participants completed an 8-week, face-to-face intervention accompanied by home assignments. The intervention included breathing exercises, individual and partner yoga movements, meditations, and group discussion. Sleep quality and quantity were measured pre- and post-intervention using the Pittsburgh Sleep Quality Index. Descriptive statistics included means, medians, and frequencies; Student's t-tests or chi-square tests were performed to assess subset differences. Stratified analyses were conducted separately on the survivor and family member groups due to within-dyad correlation. The majority of survivors were females (56%; n=18) and African Americans (63%; n=20). Most family members (57%; n = 17) were spouses. Post-intervention, all participants reported improved global sleep quality, sleep efficiency, increased sleep duration, and decreased daytime dysfunction. Sleep onset latency, sleep disturbance, and use of sleep medication also decreased. Survivors and their family members experience poor sleep quality. Preliminary outcome data indicate sleep benefits due to Breathe Easier. Further research is needed to develop a comprehensive understanding of the sleep characteristics and other influencing factors for survivors and family members. This research contributes to the minimal evidence in the literature addressing symptoms and symptom management of survivors of early-stage lung cancer. Second, this research includes an understudied population, African-Americans. Third, findings contribute

to the growing field of sleep quality, which affect survivors of lung cancer, their family members, and individuals with other cancer diagnoses. Fourth, dyadic interventions are increasingly showing promise as improvements are seen simultaneously in survivors and family members.

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**NURSING CARE OF ADULTS WITH CANCER WHO HAVE LIMITED ENGLISH PROFICIENCY (LEP): CULTURAL AWARENESS AMONG ONCOLOGY NURSES**

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**Category: Health Disparities**

Cancer hospitals throughout the United States have seen an increase in the number of patients who have Limited English Proficiency (LEP). LEP refers to individuals whose primary language is not English and whose reading, speaking, writing, or understanding of English is of low proficiency. This population requires nurses who are responsive to their cultural needs. The purpose of this study is to assess cultural awareness among inpatient oncology nurses and identify areas where they need cross-cultural training and educational development. We used an online survey containing twenty-three 5-point Likert response items and four open-ended questions. Forty-four registered nurses in oncology ranging in age from 18–60 years, mean age 38, responded to the survey. Nurses evidenced a moderate to high level of cultural awareness. Despite this level of cultural awareness, nurses expressed a desire for tools and resources that would better equip them to provide better care to patients with LEP and cancer. The nurses' suggestions included dedicated unit interpreters, an increased number of bilingual nursing staff, and free language lessons. Nurses expressed that a dedicated unit interpreter would greatly facilitate patient-provider communication and expedite care. Although available, the nurses reported that waiting for the interpreter to arrive on the unit impeded care for patients with LEP. The nurses also indicated a need for an increase in bilingual nursing staff. A bilingual nurse, who obtains certification as a medical interpreter through

the hospital's language Translation Services Office, can interpret interactions with patients with LEP, thereby decreasing the demand of interpreters to the unit. Finally, nurses requested that free language lessons be offered. Nurses stated that being able to communicate in the patient's primary language would allow them to build a better relationship with the patient and care for them in a more holistic manner. Considering the increasing number of patients with LEP and cancer, nurses need the appropriate tools and resources if they are to optimally deliver equitable, safe, and holistic care. Oncology units should be encouraged to develop and implement innovative strategies to facilitate nurses' efforts to optimize care for this patient population.

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### **THE EFFECTIVENESS OF IMPLANTING BOTH TEAM-BASED LEARNING AND PROBLEM-BASED LEARNING INTO ONCOLOGY NURSING CURRICULUM ON STUDENT'S ATTITUDE, ENGAGEMENT, SELF-DIRECTED LEARNING AND ACADEMIC PERFORMANCE**

Lih-Mih Chen, RN, PhD, Kaohsiung Medical University, Taiwan, Kaohsiung

Category: Complex Research Designs and Advanced Methods

Taking care of cancer patients regards as a big challenge, not only for the ever-changing on diseases and treatments, but also for the competencies of providing holistic care. Team-Based Learning and Problem-Based learning are considered as the effective strategies to improve student's learning attitude, class engagement, self-directed learning and academic performance in nursing education. This study tried to evaluate the influences of TBL and PBL on students' learning attitude, class engagement, self-directed learning and academic performance in an Oncology Nursing course. A single group, pre-post test research was designed. Fifty four nursing students who elected the "Oncology Nursing" course were recruited purposely from a medical university in Southern Taiwan. The Four-hour TBL sessions and followed by the six-hour PBL case discussions were given in an oncology nursing course. The TBLSAI, Self-Directed Learning Scale, Class Engagement Scale, IRAT, GRAT, midterm and final exam scores were measured. Results indicate significant changes in the scores of students' learning satisfaction, class engagement within before and after TBL intervention. The self-directed learning scores significantly changed after both TBL and PBL interventions. Results also indicate that significantly higher scores of self-directed learning on

PBL intervention than the TBL intervention. The Group performance scores, individual midterm and final exam scores were significantly improved by using the TBL and PBL intervention. The Final exam scores were positively significantly correlated with class engagement and self-directed learning scores. For long, oncology nursing have been taught with the didactic lecture system. Using both TBL and PBL provide the innovative solution for substituting the traditional teaching model of classroom instruction. TBL and PBL are highly structured educational strategies that can improve students' learning attitude, class engagement, self-directed learning and academic performance in the Oncology Nursing course. Using TBL and PBL in oncology nursing course may build the professional knowledge and skills that may also apply in taking care of cancer patients in clinical practice as well in the future. Overall, we conclude that Using Team-Based Learning with Problem-Based Learning, as the flipped teaching model, may facilitate student's learning attitude, class engagement and self-directed learning and enhance academic performance in Oncology Nursing course.

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### **AN INTEGRATIVE REVIEW OF THE SYMPTOM EXPERIENCE IN YOUNGER CHILDREN (LESS THAN 8) WITH CANCER**

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Category: Symptom Science

Children with cancer endure multiple symptoms during treatment. However, there remains a lack of systematic approaches to capture the whole picture of the symptom experience of children with cancer younger than 8 years of age. The purpose of this study was to conduct an integrative review to explore symptom experience of children with cancer younger than 8 years of age. A literature search of PubMed, CINAHL, Web of Science, PsycINFO, Cochrane databases and four Chinese databases was performed to identify empirical studies, followed by an evaluation of empirical quality and data extraction and synthesis. Twelve articles covering eleven symptoms met the inclusion criteria. Children with cancer under the age of 8 years experienced multiple intense symptoms, especially pain, worry, and anxiety. PedsQLTM Cancer Module (for age 5-7 years) was the most commonly used instruments. There were limited data on these children's symptom quality, timing and distress. Discordance between a child's age and symptom intensity was noted. Inconsistent concordance existed between children and their proxy symptom reports. Children with cancer younger than 8

years of age experience multiple symptoms. There is a need to investigate the full symptom profiles of these young children in consideration of their developmental nuances; to examine the concordance among different symptom reporters; as well as to conduct more qualitative studies to explore their symptom experience.

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### **CPP HEALING AT HOME: A RURAL CANCER SURVIVORSHIP PROGRAM**

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Category: Survivorship

Survivorship has been identified as an important aspect of Cancer Care in the past decade and we wanted to create a sustainable survivorship program in our rural setting. In our phase 2 clinical study we recruited 20 volunteers, treated with curative intent. We allowed for a more individualized program focused on exercise and dietitian support, as well as complementary therapies, classes and health coaching. We are completing the active phase of the study September 2019, with completion of the project by February 2020. Data included height/weight, waist circumference, blood pressure and labs (fasting glucose, HgA1c, lipids) pre/post study. Our Physical Therapist (PT) measured flexibility and strength of major muscle groups, and made recommendations for individualized exercises, based on the activity guidelines by the American Cancer Society. Our Oncology Dietitian measured food preferences, and was available for consultation throughout the study. Finally, we measured study participants Quality of Life using the FACT-G survey, and this was reviewed by our clinical Social Worker during the study for possible intervention. We added a process element in this study incorporating a survivor care plan provider visit to our treatment process. We have completed our focus groups and have received feedback from the participants: the program is meeting their needs; the survivor care plan visit should be about 1 month after completing treatment; telephone outreach during the first month after treatment ends was important. We recognize the need to have a newsletter available to send to our patients who have completed treatment to let them know of supportive care opportunities we have. This study has led to the recruitment of a nurse practitioner to guide the program in the future. We have a clinical dietitian, clinical social worker and resource coordinator who will be able to continue to support our survivors moving forward. We have not decided what role the Physical Therapy department will have for our

survivors going forward but have strengthened workflows between Physical therapy and the cancer center. As a rural cancer center we have created a sustainable cancer survivorship program using evidenced based tools, that meets the needs of our patients.

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### **CONSTRUCTION AND VALIDATION OF NURSING ASSESSMENT TOOL FOR OUTPATIENTS IN CHEMOTHERAPY TREATMENT**

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Category: Healthcare Delivery

The communication process, based on valid and reliable tools, contributes to patient safety. Provide critical information for nurses to help clinical reasoning and to diagnosis at the bedside is essential for providing individualized person-centred care. The nursing process involves assessment, diagnosis, planning, implementation, and evaluation phases. The study aim was construct and validate a data collection tool, for step one of nursing process, for outpatients in chemotherapy treatment. Methodological study, involving three stages: construction, content validation and reliability assessment, performed in a chemotherapy outpatient clinic of the teaching hospital in Brazil. For the construction, we considered the prevalence of the five most frequent tumors in the Brazilian population, treatment protocols, main chemotherapy agents and adverse events. The content validation was conducted by the Delphi Technique with two rounds and participation of clinical and specialists nurses. In the third stage, the instrument was applied to a sample of patients. The analysis statistics was conducted and the results presented by the content validation index (CVI), intraclass correlation coefficient (ICC) and Cronbach Alpha ( $\alpha$ ). The research was approved by Ethics Committee of institution. Written informed consent forms were obtained from the clinical and specialists nurses, and patients. The construction of the instrument resulted in the preliminary version, which was validated by clinical and specialists nurses with agreement rates and CVI greater than 80% for most items. Participated of the study 64 patients, most male, mean age 59.4 years (SD 13.5) with colon and rectal neoplasms. The ICC varied from -0.016 to 1.000 among

the items and investigators and Cronbach  $\alpha$  from 0.674 to 0.699 between the observers. The final version of instrument for data collection for the nursing process, named Nursing Historic and Physical Examination for the Outpatient in Chemotherapy Treatment, show higher content validity and reliability indices than recommended. The tool can be used by clinical and specialist nurses for data collection in oncology ambulatory, previously the chemotherapy session. This application requires about 12 minutes of nurses' attention. The historical and physical examination of nursing for outpatient chemotherapy patients—assessment tool can be transformed into a digital collection instrument or application to be used during the nursing assessment.

## 100 PREVENTING URINARY TRACT INFECTIONS IN POSTMENOPAUSAL WOMEN BY USING VAGINAL ESTROGEN

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Category: Healthcare Delivery

The purpose of this project was to assess the efficacy of vaginal estrogen administration in preventing urinary tract infections in postmenopausal women. Urinary tract infections (UTIs) are a prevalent issue for women, accounting for almost 25% of all infections. Women with cancer are at an increased risk of developing UTIs and recurrence due to immunosuppression and possible postmenopausal changes. Other than through the normal aging process, a woman may experience the premature or abrupt start of menopause due to various cancer treatments such as surgery, chemotherapy, radiation, or hormone-blocking agents. Decreased estrogen secretion can make postmenopausal women more susceptible to developing UTIs due to vaginal atrophic changes and altered periurethral and vaginal flora. Symptoms of genitourinary syndrome may mimic or mask symptoms of a UTI and make it difficult to treat. Additionally, UTIs are a significant burden on the health care system and contribute to the rising problem of antimicrobial resistance. A literature search was performed using PubMed, CINAHL, and Embase to search articles written within the last 10 years. Search terms included postmenopausal, vaginal estrogen, UTI, urinary tract infection, bladder infection, or cystitis. 53 articles were identified, and 4 met the inclusion criteria. 3 systematic reviews and 1 cohort study were analyzed. 14 of 27 articles examining the effect of vaginal estrogen showed decrease rates of UTIs, with topical creams or gels proving most

effective than other methods compared with pessaries, vaginal rings, tablets, and systemic treatment. 13 articles showed no change in UTI recurrence rates. Recurrent UTIs greatly reduce a woman's quality of life. The use of vaginal estrogen should be considered for women experiencing recurrent UTIs in adjunct with other methods to prevent future UTIs. Those who have breast cancer should discuss further with their oncologist. Nurses can advocate for patients and collaborate with the treating physician about alternative methods for UTI prevention. If vaginal estrogen is appropriate, it should be discussed with the patient's oncologist if she has a history of breast cancer. Nurses can also educate women to void on a schedule, double void, maintain adequate fluid intake, void post-coital, emphasize the risk of antibiotic resistance, and consider supplements such as cranberry, Vitamin C, and probiotics.

## 103 PHASE 1/EARLY DRUG DEVELOPMENT ONCOLOGY COMPETENCY BASED ORIENTATIONS (CBO) FOR THE ONCOLOGY ADVANCED PRACTICE PROVIDER (APP)

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Category: Implementation/Improvement/Team Science

CBO plans are a vital component in the onboarding and mentorship of new/seasoned APP hires. A CBO is an orientation program that focuses on a new APP's ability to actually perform the expectations of his/her role in a disease team/setting. In 2013, a generic APP CBO plan was developed by the Advanced Practice Nurse (APN) Council at Yale, which focused on the onboarding components and the five pillars of competency, which included professionalism, systems based practice, patient care/procedures, medical knowledge, and practice based learning and improvement. In 2018, Smilow Cancer Hospital @ Yale developed disease specific CBO plans. The purpose was to determine the essential functions of the job and what knowledge and skills are required for Phase 1/Early drug development APPs to be successful, assess their current skill set, and determine what is preferred versus what is required in order to meet their new roles and responsibilities. Phase 1 competencies include a thorough understanding of clinical research and regulatory procedures, proficiency at comprehensive physical exams and an understanding of various investigational drugs including immunotherapy and targeted therapies. APPs require the ability to collaborate internally

and externally with other disease teams, providers and institutions to ensure comprehensive care across the disease spectrum. The APP should be able to consent patients while setting expectations for the demands of protocol therapy, balancing the requirements of the trials and addressing goals of care. APPs will maintain a strong foundation of oncology and general medicine principals. As new Phase 1 APPs are hired, the CBO is implemented. The evaluation will assist in determining the APP's progress and mastery of skill set and competencies in Phase 1. It will also help in identifying areas of concern and mastery. Methods will assist in providing positive APP experiences that are specific, measurable and actionable. The Phase 1 CBO will assist APPs in adapting to the practice settings verify APPs' initial competencies and skills. CBOs provide a framework to bring APPs to full productivity in their roles. CBOs offer numerous advantages for the APP mentors and hires. They provide clear guidelines regarding competency expectations which are ongoing and can decrease the amount of time spent in orientation for more experienced/skilled APPs.

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### LATE DOSING OF LEUPROLIDE AND TESTOSTERONE LEVELS >20NG/DL IN PROSTATE CANCER PATIENTS

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Category: Palliative and Psychosocial Oncology Care

Leuprolide is a frequently used luteinizing hormone-releasing hormone (LHRH) agonist for the delivery of androgen deprivation therapy (ADT) for prostate cancer (PCa). Increasing evidence suggests achieving and sustaining testosterone (T) levels at <20ng/dL with ADT is desirable and correlates with improved disease-specific survival in advanced PCa patients. However, T may rise above castration level (50ng/dL) between injections, especially if a subsequent dose is delayed. If prostate-specific antigen (PSA) levels rise, it may be unclear whether this is a result of late dosing of ADT, inadequate T suppression, or disease progression to castration resistant PCa. Nurses play a critical role in ensuring timely LHRH agonist dosing to prevent potential T breakthroughs and performing regular T/PSA tests to monitor therapy effectiveness. This study evaluated the timeliness of leuprolide dosing, subsequent rate of

T breakthroughs and frequency of T/PSA tests prior to dosing in PCa patients. A retrospective review of electronic medical records (1/1/07-6/30/16) of leuprolide injections (n=78,464) evaluated the frequency of late dosing (defined as occurring after day 32, 97, 128, 194 for 1-, 3-, 4-, 6-month formulations, respectively), T tests >20ng/dL and frequency of T/PSA tests prior to dosing. Of all leuprolide injections, 26.8% of subsequent injections were late: 14.4% were ≤1 week, 3.2% were between 1-2 weeks and 9.1% were >2 weeks late. 42% of T values exceeded 20ng/dL for late injections; while only 21% exceeded this level for early/on-time injections. 83% of leuprolide injections had a PSA value drawn prior to dosing; only 14% had a similarly timed T assessment. Across leuprolide injections, >25% of injections were late. When dosing was late, proportion of T tests >20ng/dL increased compared to when the dosing was early/on-time. Late injections were correlated with ineffective T suppression (above 20ng/dL) over 40% of the time. For all injections, T levels were not monitored as frequently as PSA levels. Considering the clinical benefits of maintaining effective T suppression throughout the course of ADT, nurses should ensure treatments are within approved dosing instructions, T levels are routinely monitored, and treatments with proven efficacy through the dosing interval are prescribed to maintain T below castration levels. Additionally, nurses can educate patients on the importance of adherence to dosing interval and T testing.

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### WE NEED TO (HELP OUR PATIENTS) GET A MOVE ON! A RETROSPECTIVE, CROSS-SECTIONAL STUDY OF SELF-REPORTED EXERCISE AND DEPRESSION AMONG PATIENTS WITH BREAST, GYNECOLOGIC (GYN) AND THORACIC CANCER SEEN AT A NURSE PRACTITIONER-LED SURVIVORSHIP CLINIC

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Category: Survivorship

Cancer survivorship in the US will grow to over 20 million by 2026, and evidence indicates a higher prevalence of depression compared to adults in the general population. There is an inverse relationship between exercise and depression, and other health benefits desirable to survivors including management of body mass index (BMI), fatigue, bone density, diabetes and cardiovascular disease. However, reports indicate > 50% of survivors do not meet national



exercise recommendations to participate in sufficient activity to accrue health benefits, defined as a weekly total of at least 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity activity. Little is known about differences in self-reported exercise frequency and intensity and depression by tumor type, therefore the purpose of this study is to analyze responses to a self-assessment tool completed at our nurse practitioner-run clinic at an urban comprehensive cancer center. We conducted a retrospective, cross-sectional study of patients with breast (n=375), GYN (n=369) or thoracic (n=668) cancer aged > 18 who completed a Survivorship Patient Self-Assessment (SPSA) between July 2017 and December 2018. We analyzed the first SPSA completed by each patient during the study period to assess attainment of sufficient activity (score of >24) using the Godin-Shepard Leisure Time Physical Activity (GSLTPA), depression scores by PHQ-2 (all patients) or PHQ-9 (those with a score of >3 on PHQ-2) and abstracted characteristics

including age, sex, race, years since diagnosis, pain, BMI, smoking, marital and employment status. The cohort was 80.6% female, 84% white, 48% (each) never and former smokers, 70.9% married, and 59% were not employed, with a mean age of 66.5 years, 7.7 years post diagnosis, BMI of 28.4, a pain score 1.58 (0–10 scale). 61.7% scored <23 on GSLTPA (insufficiently active) and 7.4% (n=105) scored some level of depression per the PHQ-9, with 42% (n=44) of these moderate to severely depressed (3.1% of total cohort). By tumor type, patients with breast cancer were significantly more likely to be sufficiently active than were GYN or thoracic survivors (p=0.026), but there was no inter-group difference in incidence or severity of depression. Nurses working with survivors should assess physical activity and support patients to meet weekly exercise duration and intensity recommendations. Further research is needed to examine associations between patient characteristics, exercise and depression.