2018 CONGRESS

Late-Breaking Abstracts

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Late-Breaking Abstracts Are Indexed by First Author and Page Number

PHYSICAL ACTIVITY AND SYMPTOMS IN YOUNG ADULTS WITH CANCER IN EARLY MONTHS OF CHEMOTHERAPY

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Staying physically active has important short- and long-term benefits for patients with cancer, including less severe symptoms, improved physical function, and better tolerance to treatment. During chemotherapy, multiple cancer-related symptoms cause many patients to become less active. Young adults with cancer are an understudied group of patients, and little is known about their physical activity during cancer treatment. This report provides baseline data about physical activity and symptom severity for a preliminary sample of 16 young adults (18–39 years old) enrolled in a randomized trial examining the effect of a physical activity intervention. To document their baseline physical activity, participants wore an accelerometer (ActiGraph GTX3+) for seven days during a week of chemotherapy administration. Accelerometer data were analyzed to determine steps per day and the amount of time participants spent per day in light, moderate, and vigorous physical activity using established cut points. Symptom severity was documented using the PROMIS-29 Profile. These young adults (62.5% female, mean age = 33.3 years) were in the first two months of treatment for diagnoses including breast cancer (5), lymphoma (5), leukemia (4), myeloma, and melanoma. Most were partnered (62.5%), and most (62.5%) were parents. The sample averaged 5137 steps/day with 242 minutes/day of light physical activity, 19 minutes/day of moderate physical activity, and no vigorous physical activity. The mean standardized PROMIS-29 profile scores for physical function, fatigue, sleep disturbance, depression, anxiety, pain interference, and ability to participate in social roles and activities for this sample ranged from 49.45 (physical function) to 55.16 (pain interference). This group of young adults receiving chemotherapy engaged in a sufficient amount of health-enhancing physical activity (at least 150 minutes/week), similar to an age-matched national cohort. Their symptom severity scores were similar to average scores for a sample of healthy US adults (PROMIS Adult Profile Instruments, 2015). The overall study will examine how physical activity changes during the course of chemotherapy and how supportive interventions may be used to optimize physical activity for these young patients.

NURSES' KNOWLEDGE, BELIEFS, AND SKILLS TOWARD LGBT PATIENTS

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While estimates vary, population surveys suggest between 5.2 and 9.5 million US adults identify as lesbian, gay, bisexual, and transgender (LGBT). Barriers to equitable healthcare are multifactorial and include negative experiences with the healthcare system. The literature suggests cultural competence is integral to creating an affirming healthcare encounter, however most nurses have not received adequate training on the care of LGBT patients. While research demonstrates increasing efforts to educate nursing students, studies of practicing nurses' attitudes toward these populations suggest negative attitudes persist. To better discern the training needs of nurses, this study sought to understand oncology nurses' knowledge, beliefs, and skills toward LGBT patients. An online survey was administered to nurses at an NCI-designated Comprehensive Cancer Center, and included the following measures: LGBT healthcare knowledge, beliefs, communication behaviors, willingness to treat LGBT patients, behaviors encouraging LGBT disclosure, and perceived importance of LGBT sensitivity training. Descriptive statistics were used to quantify the knowledge response; independent sample t tests and ANOVA, as indicated, were performed to explore differences by demographic characteristics; and correlations were performed to explore the associations among variables. The survey (N = 941) revealed that nurses have experience caring for LGB (86%) and T (31%) patients, however despite their familiarity, opportunities for training are evident. Only 4.7% of nurses were able to answer all knowledge items correctly, and about half identified 3 of the 7answers correctly. Higher knowledge scores were associated with all study variables, including favorable beliefs about sexual orientation and gender identity, favorable beliefs about LGBT healthcare, more open communication behaviors, greater encouragement regarding LGBT status disclosure, and greater

perceived importance of LGBT sensitivity training. The results of this study illustrate nurses' willingness and need for training in LGBT patient care. Moreover, they help define the content and structure for such training. Currently these results are serving as the foundation for the development of a communication skills training for nurses, and in the near future they will contribute to a mixed methods study comparing healthcare providers and LGBT patient-preferences and perceptions regarding LGBT patient care.

FACTORS INFLUENCING HEMATOPOIETIC STEM CELL TRANSPLANT PATIENTS' INTENTION TO PERFORM PHYSICAL ACTIVITY

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Hematopoietic stem cell transplantation (HSCT) predisposes a patient to deconditioning, fatigue, and potentially life-threatening complications. Despite evidence supporting the use of physical activity to reduce complications in the acutely ill hospitalized population, HSCT nurses are challenged to support a patient's adherence to these recommendations. The Theory of Planned Behavior (TPB), which posits that control, attitude, and subjective norm influence behavioral intentions served as the study's framework. The purpose of this study was to describe variables, including prior exercise habit and symptom distress, that influence a HSCT patient's intention to perform physical activity. A longitudinal, descriptive design was used. A convenience sampling of 54 patients undergoing HSCT completed surveys prior to hospital admission (T1), within nadir (T2), and at discharge (T3). Measures included: the Self-Report Habit Index, which was tailored to assess exercise habit; the Memorial Symptom Assessment Scale Short Form; and an investigator-constructed survey of intention, attitude, control, and subjective norm towards physical activity. Descriptive statistics and univariate linear regression were used. Intention for physical activity was high at all time points. The theoretical constructs were positively significantly associated with intention at T1 and T2. At T3, only control was related. Previous exercise habit was not related to intention. At T1, psychological

symptom distress had a significant positive relationship with all three theoretical variables. At T2, global symptom distress had a significant inverse relationship with perceived control for activity (p=.04). At T3, significant inverse relationships were found between attitude and psychological distress (p = .04) and total symptom distress (p = .01). A significant inverse relationship was found between control and physical symptom distress (p = .02), and total symptom distress (p = .04). Conceptualizing HSCT patients' physical activity with the TPB is a feasible guide for future nursing practice given the statistically significant findings. Nurses should reinforce physical activity regardless of exercise habit. Symptom distress may influence physical activity differently over the transplant trajectory. The inverse relationships between symptom distress and theoretical constructs at nadir and at discharge warrant a heightened vigilance by nurses. HSCT nurses have the opportunity over an extended hospitalization to assess physical and psychological symptoms; however, feasible interventions are needed to positively influence attitude and control towards physical activity in patients with a high symptom burden.

NURSE TELEPHONE TRIAGE TO IMPROVE PATIENT OUTCOMES AND EMERGENCY ROOM UTILIZATION FOR PATIENTS RECEIVING CHEMOTHERAPY

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Cancer patients experience multiple, often burdensome post-chemotherapy side effects that they manage at home. Successful control of symptoms is critical to quality of life, but plays an important role in patient safety and costs. Early assessment and intervention to reduce symptom severity may improve health outcomes and be cost effective by reducing the incidence of preventable and non-urgent emergency department (ED) visits. Such visits are potentially mitigated by preemptive nursing interventions; however, consistent care delivery processes that leverage nursing expertise guided by evidence, are uncommon. Outpatient oncology nurses are a vital link during treatment and often provide the first telephone support. Incorporating evidence-based practice guides for chemotherapy-related symptoms presents an opportunity for nursing to improve the patient experience, patient outcomes, and healthcare utilization. The purpose of this study was: a) To assess oncology

nurses' practice and perceived barriers to telephone support and use of symptom practice guides; b) To describe ED utilization among patients actively receiving chemotherapy. Prospective and retrospective quantitative data were collected. Cross-sectional data came from nurse surveys distributed at two community-based outpatient chemotherapy centers in the Pacific Northwest. Chart audit data of de-identified ED visits among patients receiving chemotherapy for the previous 12 months were analyzed. Descriptive statistics summarized demographic findings, nurse perceived barriers and facilitators to telephone support. ED data metrics included cancer type, treatment, days since last treatment, reason for ED visit, and disposition. Nurses reported lack of a standardized post-treatment telephone outreach plan; agreed that opportunities to improve patient follow-up exist; and the majority desired further training in symptom practice guides. Patient data revealed 329 ED visits, involving 182 unique patients. Nearly 50% of visits were related to pain, dehydration, nausea/vomiting, and fever; 40% occurring during clinic hours. Specific diagnoses and treatment plans emerged as representing potentially higher-risk populations. Opportunities were identified to provide proactive post-chemotherapy symptom support. Plans are underway to train nurses in use of Canadian-developed symptom practice guides and pilot test in targeted populations. This project is a novel attempt to integrate evidence-informed symptom practice guides into the workflow of community cancer centers aimed to improve care and reduce ED utilization. At the time of publication, no other project of its kind has been conducted in the United States using these practice guides.

GENES ASSOCIATED WITH MUSCULOSKELETAL SYMPTOMS DURING TREATMENT OF AROMATASE INHIBITOR FOR BREAST CANCER: A LITERATURE REVIEW WITH BIOLOGICAL PATHWAY ANALYSIS

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Aromatase inhibitor associated musculoskeletal symptoms (AIAMS), including arthralgia, myalgia, and muscle stiffness, are the most reported (40%–81%) symptoms during treatment with aromatase inhibitors for breast cancer. AIAMS are detrimental to medication adherence and quality of life. Apart from estrogen deprivation, the mechanisms underlying AIAMS are multidimensional and not well-understood. The aim of this literature review, enhanced with biological pathway analysis, was to gain a greater understanding of the genetic variability and biological underpinnings of musculoskeletal symptoms in breast cancer. A comprehensive, 3-step literature review with broadened scope was conducted to identify genes associated with musculoskeletal symptoms in 1) breast cancer, 2) cancer, and 3) populations with/without cancer. Studies published through June 2017 were queried using combinations of key terms in PubMed. The genes identified from the literature review were entered into a gene-gene pathway analysis using QIAGEN's Ingenuity® Pathway Analysis (IPA) software. From the literature review, 13 AIAMS-related genes were identified in breast cancer, including ESR1, CYP17A1, CYP19A1, CYP27B1, CYP2A6, CYP3A4, CYP3A5, IGF1, TCL1A, OPG, RANKL, UGT2B17, and VDR. When broadening the review scope to musculoskeletal symptoms in populations with/without cancer (e.g., chronic widespread musculoskeletal pain, osteoporosis arthritis related pain, chronic musculoskeletal pain, fibromyalgia, etc.), the number of identified genes increased to 72. The IPA biological pathway analysis revealed that the main molecular and cellular functions of the 72-gene set are: molecular transport (31/72), cellular movement (29/72), vitamin and mineral metabolism (26/72), lipid metabolism (26/72), and cell signaling (23/72). In terms of physiological system development and function, the gene set was found to be primarily involved in: connective tissue development and function (19/72), hematological system development and function (19/72), immune cell trafficking (15/72), and skeletal and muscular system development and function (15/72). The review and analysis indicate that multiple, molecular-level etiologies may contribute to musculoskeletal symptoms. Moreover, the results point to several candidate biological pathways for future investigations of AIAMS. Studies of genetic variability in candidate biological pathways can potentially lead to an improved etiological knowledge and clinical management of AIAMS. By using IPA to gain a better understanding of the identified gene set from a literature review, this study provides direction for future exploration of genetic variability on and underlying mechanisms of AIAMS in breast cancer.

A QUALITATIVE STUDY OF CLASSMATES' SUPPORT TO CHILDREN WITH CANCER DURING THEIR PALLIATIVE AND TERMINAL TREATMENT COURSE

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In the ongoing RESPECT study (Rehabilitation including social and physical activity and education in children and teenagers with cancer) school-aged children with cancer have at diagnosis two classmates assigned as ambassadors to be co-admitted during treatment. Of the 114 of 120 children included, 10 children have died. The purpose was to explore the experiences of ambassador support during the palliative-terminal treatment phase. Patients and methods: Content analysis of experiences from six children's with cancers terminal trajectories. In total 18 semi-structured interviews with 8 parents to five children with cancer, and 13 interviews including 13 ambassadors and 21 parents to ambassador have been conducted. Parents to one child with cancer declined; however, the child's ambassadors were included. Semi-structured interviews were conducted a median of 144 days [82–270 days] following the death. Results are based on the experiences from 3 girls/3 boys, mean age 10 years [6–12]. The children had a median of 8 [2–16] ambassador applications from the classmates, and 2–3 ambassadors were assigned. During treatment, the child had a median of 17 [8–23] ambassador co-admissions from ambassadors living a median of 36 km [10–298] away. The number of privately arranged visits is unknown. The children died a median of 610 days [314–1018 day] following the diagnosis, four at the hospital and two at home. The last ambassador-child interactions occurred a median of 3 days [0–78 days] prior to the death. Five major themes were identified: 1. The importance, benefits and challenges of interactions during the palliative-terminal phase 2. The forthcoming death and meaningful actions 3. The reactions of non-ambassador classmates and school teachers 4. The grief process, parental support and how to move forward 5. Balancing relationships and interactions Perspective: Ambassador support in palliative-terminal life phase of children with cancer is mutually beneficial, highly meaningful and enhance quality of for all children. Following the child's death the ambassador engage in a grief process, and despite the loss, no-one regrets being closely involved in the palliative and terminal treatment trajectory. However, parents to the ambassadors emphasize the importance of balancing their children's interactions and

including stable relationships to non-cancer children, ensuring social support following the child´s death. Including structured peer support from classmates provides a novel perspective in palliative care of children with cancer.

CANCER CAREGIVERS' EXPERIENCE OF SOCIAL SUPPORT IN THEIR OWN WORDS ON CARINGBRIDGE

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Social media use for general communication and specifically health-related communication is increasing. Caregivers are at the forefront of health-related social media users using social media more than both noncaregivers and patients. CaringBridge is a social media platform that specifically focuses on supporting patients and families during a health event; caregivers are often site authors. Research specific to health-communication websites such as Caring-Bridge and to caregivers of adult cancer patients is limited. The purpose of this study was to explore caregivers' experiences as expressed on CaringBridge. We examined how cancer caregivers work within the framework of a social-media site dedicated to the patient and explored how caregivers balanced their needs with patients' needs in their writings, and examined whether caregivers used the website for their own support. A retrospective, longitudinal, descriptive qualitative study using content analysis was conducted examining the health-communication social-media site, CaringBridge. Intercoder reliability was assessed by having a second coder independently code a randomly selected subset of 10% of the 20 cases using a coding manual; Cohen's Kappa for percent agreement was 0.715. Twenty public-access CaringBridge sites were identified; 36 caregivers journaled on CaringBridge on behalf of 20 patients. The following major categories were identified in caregivers' online CaringBridge journals: sharing patient health information, promoting cancer awareness/advocacy, social support, caregiver burden, daily living, emotions (positive and negative), and spirituality. The predominant focus of caregivers' writings on CaringBridge was the patient. Most writings were

descriptions of patients' plans of care or their daily life. Few caregivers described the impact of caregiving on their own physical and/or emotional health. Caregivers are often described as the "invisible patient" in the health care setting and the same appears to be true on social media. If caregivers are able to share their feelings, burdens, and needs with the community, then they may receive more support. Future research should include input from caregivers and identify if similar patterns of use exist. Understanding why some caregivers share or request support and others do not can help nurses identify caregivers who may need help eliciting support and could prevent caregiver distress.

INDUSTRY-SUPPORTED ORAL ABSTRACT SESSIONS

IS-25
THE RELATIONSHIP BETWEEN TOTAL NEUROPATHY SCORE-REDUCED, NEUROPATHY SYMPTOMS AND FUNCTION

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Chemotherapy Induced Peripheral Neuropathy (CIPN) is a common problem among cancer patients who receive a wide range of chemotherapy. This problem causes a decline in quality of life and increased disabilities. CIPN assessment instruments are either subjective, objective, or a combination of both. So far, there is no agreement on the best way for assessment. The goal of this study was to explore the relationships among subjective and objective CIPN assessment instruments. Specifically, this study aimed to 1) evaluate the relationship between the Total Neuropathy Score-reduced (mainly objective) and patients' function, as measured by the interference scale of the Chemotherapy-Induced Peripheral Neuropathy Assessment Tool (subjective); and 2) evaluate the relationship between the Total Neuropathy Score-reduced and neuropathy symptom experience, as measured by the symptom experience scale of the Chemotherapy-Induced Peripheral Neuropathy Assessment Tool (Subjective). To achieve those aims, a secondary data analysis for 56 participants who participated in a study entitled: Group Acupuncture for Treatment of Neuropathy from Chemotherapy was done. After Pearson correlations were calculated, the study found that there

is a positive, weak relationship between the TNSr and the symptom experience scale of the CIPNA-T($r=0.34$). A positive, week relationship was found between the TNSr and the interference with activity scale of the CIPNAT($r=0.28$). These results suggest that objective and subjective assessment are not highly correlated, and likely measure different aspects of CIPN. A comprehensive assessment approach is needed for decision making in the clinical oncology setting.

IS-26
READY, SET . . . NO: REINFORCEMENT OF EVIDENCE-BASED CLINICAL PRACTICE FOR THE NEW GRADUATE NURSE IN THE COLORECTAL/GASTRIC AND MIXED TUMORS (GMT) CLINICAL SETTING

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The new graduate nurse encounters many challenges while transitioning from advanced beginner to competent nurse. Within the oncology specialty there are additional nursing considerations such patient's diagnosis, symptom management, survivorship concerns and advancing treatment modalities. The Clinical Nurse I (CNI) on the Colorectal/GMT unit at this comprehensive cancer is supported during transition by a twelve-week unit based orientation, an eighteen-month nurse residency program, and a unit based biennial education day. However, limited resources during rotation to night shift, high patient acuity, and infrequent educational offerings impede the development of critical thinking skills resulting in practice deviation. The project describe was as collaborative effort between the unit Clinical Nurse IV (CNIV) and Nursing Professional Development Specialist (NPDS) aimed at enhancing knowledge and patient safety. Conceptually rooted in adult learning theory and the Relationship Based Care Nursing Model, a Policy Review Day program comprised of didactic and psychomotor skills was devised and implemented at the end of each twelve-week orientation. The goals of the program were to 1) provide management of the pre and post-operative surgical patient with wounds, ostomies and multiple drains; 2) team-building development and 3) to foster evidence-based nursing practice. Didactic information included evidenced-based quality initiatives on falls prevention, pressure injury, central line associated bloodstream infections (CLABSI) and catheter associated urinary tract infections (CAUTI). Psychomotor

skills included phlebotomy, peripheral IV insertions, central line dressing changes, blood product administration, foley catheter insertion, emergency management and patient controlled analgesia administration. Various teaching modalities for the program were used, such as simulation, case studies, and actual patient care. In program evaluations, participants expressed increased confidence and ability to complete various complex nursing skills post program attendance. Unit-based quality metrics have been maintained or improved since the implementation of the educational offerings. Care of the oncology patient requires the nurse to be astute in recognizing changes in labs values and patient condition; knowledgeable about the patient's disease and multiple emerging therapies. Due to variation in preceptor teaching style and ongoing practice changes this program has reinforced best practice and expectations to aide in the development of the proficient oncology nurse.

IS-27
PATIENT INTAKE DECREASES PATIENT STRESS AND IMPROVES CARE

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Preparing patients for their initial visit to an out-patient oncology center can be challenging, time consuming and stressful to patients and their family. Previously at our institution, patients were instructed to arrive 75 minutes before their scheduled appointment with the oncologist. Fifteen minutes was allotted to registration and 60 minutes was assigned for nurses to review records and to complete the initial nursing assessment, patient history and medication reconciliation. It became evident upon a patient's arrival to the clinic multiple pertinent medical records were missing, which created unnecessary delays and last minute records collection. Additionally, time and motion studies revealed patients spent 145 minutes in the clinic from "check-in to MD leaving the room", which caused significant patient and physician dissatisfaction. The opening of the Miami Cancer Institute (MCI) presented the perfect opportunity to create the Patient Intake Department. Nursing leadership at MCI created a nursing model that includes oncology nurses and medical records personnel to improve the initial patient experience and physician satisfaction. This also reduces patients' anxiety before their visit. Unlike intake departments found in hospitals and surgical center that focuses on records collection. The oncology intake nurses creates a comprehensive picture of the patient by completing a patient assessment over the phone. Nurses in the Patient Intake Department collaborated with each disease-site specific physician group to create intake templates utilized by the department. Prior to the patient's initial visit, medical records staff in the department collects all pertinent records and imaging studies. The patient intake nurses review the patient's records and diagnostic images and enters the medical, surgical, family and social history into the electronic medical record. An intake nurse interviews the patient by phone to validate the medical history, complete the nursing assessment, review processes and answer any questions. The process has revolutionized the way patients are seen in our surgical, medical and radiation oncology clinics, reducing the amount of time patients spend with nursing by 50% or greater. Physicians are highly satisfied and has reduced their clinic visit times by 15 to 20 minutes as well as dictation time. Patient Intake nurses, whose skills includes high-level critical thinking, intuitiveness, compassion and a commitment to improve patient engagement and satisfaction, have positively impacted the patient experience at Miami Cancer Institute.

IS-28
SAFETY EVALUATION AND NURSING CONSIDERATIONS IN A PHASE 1 STUDY WITH CMB305, A FIRST-IN-HUMAN IN VIVO DENDRITIC CELLS TARGETING IMMUNOTHERAPY

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The CMB305 immunotherapy designed to generate anti-NY-ESO-1 T cells is composed of LV305, a non-replicating, dendritic cell targeting lentiviral vector encoding NY-ESO-1, and G305, a NY-ESO-1 recombinant protein plus a TLR-4 agonist (GLA-SE). A phase 1 study demonstrated 18-month OS rate of 76.2% in soft tissue sarcoma and induction of anti-NY-ESO-1 T cells. This phase 1 study also evaluated safety using intradermal (ID) versus subcutaneous (SC) LV305 and intramuscular (IM) G305. Adults with NY-ESO-1+ solid tumors enrolled 03 June 2015 to 20 Sept 2017. The CMB305 regimen with 4 injections of LV305 either ID (Arm A) or SC (Arm B) injections, alternating with 3 IM G305 injections. A

safety review of treatment emergent adverse events (TEAEs) was conducted. The objective was to evaluate TEAEs by routes of administration and immune related AEs of CMB305 and patient (pt) safety from a nursing perspective. As of 22 Sep 2017, 44 pts (n=35 Arm A and n=9 Arm B) were evaluable. Pts had prior therapy for advanced disease. Neither dose limited toxicities (DLTs) nor differences in TEAEs between routes of administration were observed. Most treatment related AEs (trAEs) were CTCAE (v4.03) grade 1–2. The most frequent (>=10%) trAEs were nausea (n=5, 11.4%), fatigue (n=15, 34.1%), influenza like illness (n=10, 22.7%), myalgia (n=7, 15.9%), pruritis (n=5, 14.3%) and injection site reactions (n=25, 56.8%). No grade 4–5 trAEs but three grade 3 trAEs. A non-serious fatigue, a serious prostatic pain in a pt with prostate mass and a serious pneumonitis in a lung cancer pt previously treated with pembrolizumab. TEAEs with study drug discontinuation (n=5, 11.4%) most due to disease progression. LV305 persistence results negative to date. CMB305 is well-tolerated and administered in the outpatient setting which results in robust anti-NY-ESO-1 immune response and may improve OS. The safety profile of CMB305 either ID or SC is similar. Prior cancer history is important to evaluate potential risks for TEAEs. In addition, nurse and patient education is essential for identifying and managing potential immune related AEs such as fatigue, cough, and tumor related pain of such vaccine immunotherapies such as CMB305. Further investigation is planned in synovial sarcoma in a phase 3 study.

IS-29
BREAST CANCER PATIENTS CHALLENGED BY INHERENT INACTIVE LIFESTYLE AND EXPOSURE TO TREATMENT TOXICITIES— DOES THE ONCOLOGY CLINICAL NURSE HAVE A CRUCIAL ROLE TO PLAY?

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Anti-neoplastic treatment including chemotherapy is synonymous with an inactive daily life for a substantial number of patients. Surveillance studies have demonstrated a decline in cardiorespiratory fitness (VO2 peak) with up to 25–35% in breast cancer population following adjuvant chemotherapy and radiotherapy, which correspond to an expected loss in physiological capacity during 15–20 life years. The optimal setting, dosage and combination of exercise and health promoting components that best facilitate cardio-respiratory fitness, patient adherence and symptom management to support lifestyle changes in an at-risk population of pre-illness physically inactive breast cancer patients remain unclear. The purpose of the study was to compare the immediate and sustainable effects on physiological and patient reported outcomes from two complementary multimodal interventions initiated at onset of adjuvant chemotherapy. Breast cancer patients referred to adjuvant chemotherapy (n=154) verified as physically inactive (oncologists and oncology nurses pre-screening) were eligible to enter a two-armed randomized study comparing a 12-week supervised hospital-based moderate to high intensity exercise health promoting intervention with an instructive home-based 12-week pedometer intervention with health counseling. A screening instrument based on national physical activity recommendations proved reliable to identify pre-illness physically inactive breast cancer patients with a low or very low (90%) cardio-respiratory fitness compared with the background population. Using golden standard measures, the study preliminary demonstrates a slight to moderate 7% VO2-peak decline during taxane-based adjuvant chemotherapy and across study groups. Follow-up measures at week 39 shows a recovery in VO2 peak indicating an efficacy of both interventions to adopt sustainable lifestyle changes with physical activity in an at-risk breast cancer population. This study reproduced previous high-quality evidence showing that cardiorespiratory fitness declines during taxane-based adjuvant chemotherapy (Docetaxel). As one of the first RCT since this shift in the chemotherapy agents (2008), we demonstrated a recovery in VO2 peak at follow-up supporting the need and benefit of early initiated interventions even though patients are suffering from various toxic effects of chemotherapy. The relevance of improving cardiorespiratory fitness in breast cancer survivors is beyond questioning and the oncology clinical nurses are in a unique clinical position to motivate and guide at-risk breast cancer patients to life-style modifications, while aiming long-term health challenges and improvement of overall survival.

IS-30

EXAMINING THE LINK BETWEEN BREAST CANCER AND CARDIOVASCULAR DISEASE RISK IN YOUNG SURVIVORS

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Approximately 10% of breast cancer survivors (BCS) are diagnosed before 45 years of age and are considered "young." The five-year survival rate is approximately 90%, and young BCS are likely to have long survivorship periods. BCS often receive cancer treatment (e.g., anthracyclines, trastuzumab, radiation therapy) that increase cardiovascular disease risk. Examining cardiovascular late effects of cancer treatment is an Oncology Nursing Research priority; however, current clinical practice guidelines do not suggest long-term cardiovascular screening/monitoring. Further, much research in cardio-oncology focuses in older cancer survivors. The purpose of this study is to examine the cardiovascular disease risk profiles of young BCS. Electronic medical records from an Alabama academic medical center were reviewed to identify 152 young BCS diagnosed at age 30-44 years and with Stage I-III breast cancer between 2012 and 2015. Data abstracted consisted of demographics, survivorship characteristics, and cardiovascular disease risk variables (e.g., obesity, smoking, and blood pressure). Data were abstracted at breast cancer diagnosis and two-years after diagnosis (follow-up). Descriptive statistics and t-tests were conducted. The average age at breast cancer diagnosis was 39 years (SD 4); 74% were married and 72% employed. Treatment consisted of 83% chemotherapy (43% anthracyclines; 26% trastuzumab), 65% radiation therapy, and 99% surgery. There was a significant increase in body mass index from breast cancer diagnosis to follow-up (27.9 kg/m2 vs. 29 kg/m2, p<0.01) and systolic blood pressure (124 mmHg vs. 125 mmHg, p<0.01). Smoking rates decreased from 18% at diagnosis to 13% at follow-up. This study demonstrates that young BCS may be at increased cardiovascular disease risk with poor underlying cardiovascular disease risk profiles combined with receiving cardiotoxic treatments. Additionally, the cardiovascular disease risk

may increase over time. Current adult cancer clinical guidelines may not be applicable, as young BCS may have similar cardiovascular late effects to pediatric cancer survivors who also have long survivorship periods. Therefore, there is a need to generate nursing research focused in cardiovascular disease risk in young BCS to improve survivorship care. Collaborations between oncology and cardiac nurses are important in both practice and research to establish a better understanding of cardiovascular risk profiles and identify impactful interventions geared toward young BCS.

POSTER SESSIONS—RESEARCH

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PACMEN: A FEASIBILITY STUDY

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Recent evidence has led to the recommendation that moderate-intensity physical activity (PA) may benefit adults diagnosed with cancer, from time of diagnosis through treatment. However, there is limited evidence suggesting what PA patients with cancer may be more likely to perform and sustain over time. The purpose is to: 1) measure PA and functional capacity in men newly diagnosed with prostate cancer prior to treatment, 2) explore feasibility of a 2-week PA intervention during pre-treatment. Additional exploratory aims: assessing intervention safety and tolerance, change in functional capacity, change in symptoms. This feasibility study explores PA preferences and incorporation into daily activities over a 2-week timeframe in 15 men newly diagnosed with prostate cancer. Using baseline measures including demographics (age, medical info, body fat measurement), functional capacity (6-minute walk test, balance, timed-up-and-go test), PA (Readiness Questionnaire, Godin Leisure Time Exercise Questionnaire, Rating of Exertion, Daily Diary), and symptom impact (EORTC QOL C30 and PR25, NCCN Distress Thermometer, Self-Efficacy Scale), the nurse discusses potential physical activities to perform to meet their individualized

intervention prescription. All measures are repeated at 2-weeks. All subjects have the option to continue in a companion study exploring PA through treatment. Descriptive statistics are used for all baseline and post-intervention. Repeated measures include functional capacity tests symptom impact, and daily PA diary for type, duration, rating of exertion. Wilcoxon t-tests will be performed for each continuous outcome to provide a measure of statistical significance to the differences before and after the intervention. While enrollment is ongoing, preliminary data indicate that men awaiting treatment decisions are eager and engaged in performing the PA intervention. Participant functional capacity have trended towards improvement and symptoms have not worsened through the 2-week interval. Participants have indicated willingness to continue participation through treatment to determine the impact of PA through treatment on functional capacity, symptom impact, and treatment-related outcomes. It is hoped that emphasizing pre-treatment PA may promote sustainability beyond treatment completion and reduce long-term treatment effects. It is expected that engaging patients to choose preferred activities to meet recommended goals will increase sustained performance. Study results will be used to design a larger PA intervention study to determine sustainability and healthcare effects during treatment and through first year post-treatment.

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EFFECTS OF AN ELECTRONIC-BASED CANCER ORIENTATION PROGRAM IN REDUCING EMOTIONAL DISTRESS IN NEWLY DIAGNOSED CANCER PATIENTS

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Newly diagnosed cancer patients have to adjust to a new way a life, which includes a multifaceted treatment regimen in collaboration with a new healthcare team that must begin immediately. The complexity of the cancer treatment process increases emotional distress and decreases a patient's coping abilities. The purpose of this study is to reduce emotional distress in newly diagnosed cancer patients using an electronic based multimedia application to orient patients to the Rutgers Cancer Institute of New Jersey (RCINJ). Derdiarian's Theoretical Framework of Coping and Informational Needs for Newly Diagnosed Cancer Patients and the Knowledge-to-Action framework were both used to guide the development of this project. This is a pre-/post-test quasi-experimental design

using a convenience sample of newly diagnosed cancer patients presenting for their first chemotherapy infusion at the RCINJ. The intervention is an electronic multimedia based application that will contain the current in-person orientation program that this facility offers. The intervention will be accessible through Apple iOS iPads provided by the facility. Emotional Distress was measured using the Distress Thermometer, created by the National Comprehensive Cancer Network. Intervention outcomes will be analyzed statistically using Wilcoxon signed rank test to assess emotional distress, in a pretest and posttest fashion, along with coping style and informational needs measured in a pretest fashion only. Other outcomes, like rating the tour of the oncology clinic or patient satisfaction with the intervention provided, will be measured in a posttest only fashion. This is an ongoing study and results are currently unavailable. The anticipated findings is a decrease in emotional distress after use of the electronic based multimedia application. Our hope is that the results of the study will assist in decreasing emotional distress of newly diagnosed cancer patients. Further, the hope is that patient education will be propelled into the future by way of health information technology catered specifically to patient needs and disseminated by facility-specific requirements.

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THE EXPERIENCE OF YOUNG WOMEN LIVING WITH ADVANCED BREAST CANCER: A HERMENEUTIC PHENOMENOLOGICAL STUDY

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The purpose is to describe and interpret the meaning of young women living with advanced breast cancer. Little is known about the particular needs and daily life experiences of young women (age 25–39) living with advanced breast cancer. They have described themselves as invisible and without a voice and live with the knowledge that their future is uncertain. Limited research suggests that they face unique challenges in their daily lives that differ from older women. The lack of disease- and age-specific research makes it difficult to know the true nature of everyday experiences in which nursing could make a difference. Main Research Variable: The phenomenon of young women living with advanced breast cancer. Design: Longitudinal qualitative study using a hermeneutic phenomenological approach. Setting: Participants were recruited from private Facebook groups for

women with breast cancer. Sample: Women aged 25–39 with Stage III or IV breast cancer. Data were collected from 12 participants through semi-structured interviews and written journals. Analysis was conducted using NVivo software. Sixteen women emailed the investigator in response to the Facebook posts. Two were ineligible based on age. Twelve women ($\overline{X}$ =35.9 years) were enrolled in the study. All were married and had at least one child. Most (n=7, 72.7%) worked full-time. Twelve participated in the first interview and nine participated in a second interview approximately 4 weeks after the first interview. Three participants wrote and returned journals. The overarching theme of Wearing the Mask of Wellness and five sub-themes were identified: Know Me, Being a Mom, Daily Life, Coping, and Connections. Findings demonstrate that young women with advanced breast cancer are managing multiple roles and responsibilities despite the ongoing challenges of treatment and symptom management. Knowledge directly acquired from patient experiences is needed to design care that will improve the experience of living with advanced cancer in ways that are meaningful to the patient. This knowledge will better equip nurses to care for this vulnerable population. This knowledge is foundational to further research with the ultimate goal of developing person-focused interventions. This study contributes insights about the experiences of young women living with advanced breast cancer. This will provide nurses with knowledge to anticipate psychosocial and physical concerns to better care for them.

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BUILDING A SYSTEM-WIDE NAVIGATION PROGRAM

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Oncology navigation is one component of cancer control programs that incorporates evidence-based practice initiatives that address health disparities. Each cancer experience is unique to itself and is influenced by many variables including socioeconomic status, geographic location, cultural attitudes, beliefs and insurance coverage. Building a navigation program that fosters a positive patient experience and care satisfaction requires measurable goals, organization support and performance tracking. The overall goals of this innovative navigation program are to improve the patient experience and outcomes related to patient, clinical and return on investment. This program is developed to support a health network that includes five Magnet designated hospitals and eight QOPI certified clinics that participate in OCM. Nurses who are dedicated to transforming the organizations values, beliefs and behaviors regarding cancer care lead this initiative. Through transformational leadership and structural empowerment, the goal is to create a sustainable network-wide navigation program. The first step is identifying key stakeholders. These stakeholders include nursing, physicians, social workers, dieticians, pastoral care, payers, administration, support networks, patients and their caregivers. The second step involves training, defining the clinical pathways and determining program goals and navigation roles, responsibility and processes. In addition to training, navigators work with physicians in the practice to build consensus, and design and operationalize workflows around navigation that fit within the ambulatory clinical setting. The final step is operationalizing the process that includes defining performance metrics and evaluation. During the first four months, there were 850 navigation visits, 523 were new visits, with 62% occurring with first consult to the clinic. Referrals generated include 48% to ONN, 21% nutrition and 20% social work. Distress screening done with 573 patients. This is an increase of 85% prior to the program. Overall satisfaction, measured by CAHPS Cancer Care Survey, showed satisfaction with cancer care experience and drug team is a "9" on a 1–10 scale. Navigators enhance program operations that include quality and performance improvement around the patient experience and outcomes. Building a program requires organizations to define measurable goals, secure support with key stakeholders and integrate navigators within the practice environment.

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SAFE ENTERAL MEDICATION ADMINISTRATION: CURRENT GUIDELINES VERSUS CURRENT NURSING PRACTICE

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Malnutrition occurs in 40 to 80 percent of cancer patients and is associated with overall poor survival. Oncology nurses contribute to the plan of care as they use and maintain enteral feeding tubes for nutrition and medications. Guidelines recommend that nurses flush with water before and after each individual medication. Flushing between each medication results

in large total volumes of fluid to be administered, which subsequently may increase gastric residuals. Increased gastric residuals have been linked to aspiration events. Research has shown that the majority of nurses administer enteral medications as a combined solution. This method is inconsistent with current guideline recommendations. However, there is limited research on the potential adverse effects of this practice. The aim of this study was to evaluate the total volume of fluids given when administering enteral medications in a combined method versus an individual method and to assess the frequency of tube occlusion and observed reactions (crystallization or precipitation). Nurse volunteers from five intensive care units, including one oncology ICU completed surveys after medication administrations with two or more enteral medications. Data gathered included 1) if medications were mixed together or given individually, 2) total volume including the flushes for the medication administration, 3) whether tube occlusion occurred. 148 surveys were completed. Medications that were administered individually, with a flush in between each medication, had a greater volume per medication compared to medications that were combined (70.7 ml (SD 31.4) vs. 20.3 ml (SD 12.1), p<.001). No tube occlusions occurred during any of the documented medication administrations. There was no difference in observed reactions between the two groups (p<.001). Combining medications for enteral administration results in a reduction to the total fluid given during an enteral medication administration. While this was a small sample, the findings did not reveal any occurrences of tube occlusions or difference in observed reactions secondary to combining enteral mediations. Given the proportionally higher number of oncology patients with enteral feedings, this population may be susceptible to adverse events, such as increased gastric residuals and tube occlusion due to inconsistent practice. More research is needed to develop safe guidelines for enteral medication administration to decrease the total volume of fluid administered while negating risks of tube occlusion and drug-drug interactions.

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METFORMIN: A ROLE IN PANCREATIC CANCER PREVENTION?

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The purpose is to assess whether metformin reduces the likelihood of developing pancreatic cancer among individuals with type II diabetes mellitus (DM II). Metformin is a first-line antihyperglycemic drug effective in the early stages of DM II treatment. Metformin has hypoglycemic and hypoinsulinemic effects and has been shown to also have antineoplastic and anticarcinogenic properties in various studies. These characteristics have made it a possible candidate as a treatment in reducing the risk of developing pancreatic cancer. A PubMed search of articles published between 1970–2017 and a CINAHL search of articles published between 2009–2017 yielded 342 results and 24 results respectively using the keywords: "hypoglycemic agents," "risk," and "pancreatic neoplasms" OR "adenocarcinoma." 24 duplicate articles were then removed. Inclusion criteria of articles published between 2012–2017 in English were applied, yielding 203 articles. Exclusion criteria of redundancy, irrelevant research question or outcomes, and level of evidence being less than I–III (according to criteria from the Oxford Centre for Evidence-based Medicine) were applied. This resulted in 6 full-text articles being included for the final review. Results from the six research articles did not explicitly or uniformly show that metformin had a protective effect against pancreatic cancer development in individuals with DM II. Three articles demonstrated that the use of metformin reduces the risk of pancreatic cancer (PaC) while the other three showed no significant link. Significant heterogeneity was observed in all systematic reviews with inconsistent population definitions and comparison groups noted which made a risk relationship difficult to state. There is a possibility that metformin use modulates the risk of pancreatic cancer in individuals with DM II. Clinical trials are ongoing to explore the relationship between metformin and both the risk of and treatment for pancreatic cancer. However, further research is necessary to directly link metformin as a protective agent against pancreatic cancer development.

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STRATEGY FOR IMPROVING SURVEILLANCE EDUCATION OF MELANOMA PATIENTS AND THEIR HEALTH SUPPORT TEAMS

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Patients treated for early primary cutaneous malignant melanoma have a 20–30% chance of developing

a recurrence during their lifetime. They are also at a higher risk than the average population for the development of subsequent primary melanomas. It is well established that the earlier a melanoma is detected, the better the prognosis. Health care professionals play an important role in patient skin surveillance; however, it is often the patients themselves who first detect potentially problematic lesions. Additionally, because of the difficulty of viewing large parts of one's own body during self-exam, it's not surprising that family members, partners and friends (referred to as the patient's health support team) are often the ones to detect cutaneous melanomas. But it's not evident that melanoma prevention programs are being designed to engage health support teams in routine surveillance. Improving melanoma recognition skills not just in patients but also in those individuals at home involved in a patient's care would almost certainly increase early detection. This pilot project included melanoma education sessions with 19 patients and their health support teams. Patients and their teams were given basic instruction on self-screening, followed by a 10 minute discussion on the ABCDEs of melanoma, the established pneumonic for melanoma warning signs. Then patients and their teams were shown 20 thumbnail photos of skin lesions on an iphone, and asked whether they would they would bring the lesion to the attention of their dermatologist and why. Patients were asked to provide feedback on the session to determine 1)Patient motivation in self-screening and surveillance 2)Level of health support team participation in self-screening. 3)Adequacy of melanoma education from health care providers to date 4)Feedback on the current project. A small majority of participants (58%) reported that they had received sufficient melanoma education from health care providers, but 43% believed it was inadequate. Nearly three quarters (74%) agreed that their health support teams currently assisted in surveillance. All participants (100%) found the session to be useful, in particular the ABCDE review and skin lesion quiz. This project demonstrated that for education programs to be even more effective at enabling patients to detect problem lesions earlier, programs should also engage and include patient health support teams.

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FEAR OF CANCER RECURRENCE AMONG BLOOD CANCER SURVIVORS

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Cancer patients report that Fear of Cancer Recurrence (FCR) is one of their greatest concerns. Blood cancer survivors must cope with thoughts of when cancer will return, not if it will return. Yet there is little research with the impact of FCR on blood cancer survivors. Therefore, the purpose of this qualitative study was to identify factors increasing/decreasing FCR among blood cancer survivors, and to identify commonalities in coping strategies. This pilot utilized a phenomenological method to derive common meaning from the lived experiences of a convenience sample of three blood cancer survivors recruited from a large outpatient cancer center at a university-based facility in the Midwest. Semi-structured interview questions were developed to gain insight into the participants coping strategies and how they deal with FCR. Data collection is ongoing until a total of 10 patient interviews are completed or saturation is reached. Interviews were audio recorded, transcribed, and verified for accuracy. A codebook was developed and used in coding all interviews. Data were analyzed using thematic analysis techniques. This study was conducted in accordance with government regulations and UAMS research policies and procedures. Protocol was submitted and approved by the UAMS Institutional Review Board. Preliminary findings from this on-going pilot will be presented here. Recruitment is ongoing until a planned sample size of 10 is attained or saturation is reached. Clusters of meaning were developed and placed into themes. Themes were described in terms of how the participant experienced the phenomenon then common experiences among the participants were identified. Three themes emerged: I have Leukemia?, 'Gotta have faith', and Coping with FCR. Further research into how blood cancer survivors cope with the fear that their cancer will return will provide critical information to guide development of early interventions to prevent diminished quality of life and/or adverse consequences that accompany FCR. Two of the three interviews were via telephone, which may be a limitation. Phone interviews provided convenience for the participant, but may have compromised the rich personal interaction of a face-to-face interview.

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ONCOLOGY NAVIGATOR QUALITY OF LIFE ASSESSMENT AND INTERVENTIONS

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The purpose of our study is to assess the quality of life and work-life balance of the Denver Market Sarah Cannon navigation team with the goal to implement

interventions and support for navigators based on the study results. The Professional Quality of Life Scale (ProQOL) tool was utilized to measure team health for evaluation of compassion satisfaction, burnout, and secondary traumatic stress. These results, in conjunction with the Self-Care Module Survey, which identified the navigation team's biggest stressors, preferred frequency of self-care modules and retreats, and preference on event structure, will be used to guide future team health events with the purpose of overall high quality of work-life balance within the team. Findings: Compassion Satisfaction - o Raw Score Fall 2017: 42 (57 or more) o Level of Compassion Satisfaction: High Burnout - o Raw Score Summer 2017: 20 (43 or less) o Level of Burnout: Low Secondary Traumatic Stress - o Raw Score Summer 2017: 23 (50) o Level of Secondary Traumatic Stress: Average (lower end) The results of the ProQOL assessment were informative. The group reports a high level for compassion satisfaction, low levels of burnout and average levels of secondary trauma. This represents a person who derives pleasure from her work. She probably has insignificant feelings of hopelessness or difficulty in effectively dealing with her job. She may have secondary problems due to ongoing exposure to other's trauma. She may have trouble sleeping, have upsetting images in her mind, or be startled by loud or surprising noises. She would benefit from engagement, opportunities for continuing education, team building experiences, and other opportunities to grow professionally. The Self-Care and Navigator Retreat Survey gave further insight into barriers facing the navigation team. The team preference is to begin with biannual events focused on group outings, team building activities and guest speakers. Topics the group would like to focus on include professional development, communication techniques, delivering a cancer diagnosis, and compassion fatigue/burnout. It is well known that healthcare teams who have high job satisfaction and good work-life balance demonstrate higher professional performance and retain longer employment longevity. It is the goal of this assessment and associated interventions to improve or help maintain Denver Market professional quality of life.

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EXERCISE FOR GLYCEMIC CONTROL AND SYMPTOM MANAGEMENT IN ONCOLOGY PATIENTS UNDERGOING CHEMOTHERAPY

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Patients undergoing cancer treatment experience symptoms including pain, fatigue, depression, and sleep disturbance that have a negative impact on quality of life. Among the multiple contributors to these symptoms (e.g. disease, treatments, comorbidities), hyperglycemia is one that is modifiable over time. Interventions to mitigate hyperglycemia for symptom control during cancer therapies are lacking. The purpose of this study was to investigate the impact of a prescribed walking program for glycemic control and symptom management among patients undergoing chemotherapy for breast, lung, gynecologic, or gastrointestinal cancer. A prospective, pilot study that randomized patients without pre-existing diabetes into an intervention group (individually prescribed walking program + exercise benefit information) or control group (exercise benefit information only) was conducted. Patients were followed for six months, completed valid and reliable symptom surveys at enrollment, 3-months, and 6-months, and had glycosylated hemoglobin A1c (A1c) measured at enrollment and 6-months. Descriptive statistics and simple correlations were used in this analysis. Among 831 patients screened, 42 who met the inclusion/exclusion criteria were enrolled and 33 (n=15 intervention; n=18 control) completed the 6-month pilot study. The majority were treated for breast cancer (n=24) and were women (n=32). No demographic (i.e., age, body mass index, ethnicity/race), or medication (i.e., chemotherapy, steroid dose) differences were found between intervention and control groups. The change in A1c from enrollment to month 6 was significant in the intervention group with a mean decrease of 0.16 (p=.002). At month 6, sleep disturbance (p=0.023) and depression (p=0.021) were lower in the intervention group compared to the control group. Greater differences were noted within the intervention group compared to the control group in mean scores from enrollment to month 6 including: fatigue (Δ –1.48 vs. –1.11), energy (Δ +1.03 vs. +0.45), current pain (Δ –0.06 vs. +0.98), and weekly pain (Δ –0.75 vs. –0.07). Exercise may improve glucose management and decrease symptom severity during treatment for cancer. Future studies with larger sample sizes are warranted.

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FACTORS ASSOCIATED WITH MEDICATION ADMINISTRATION ERRORS AND WHY NURSES FAIL TO REPORT THEM

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Patient safety is a significant challenge facing healthcare systems. The administration of medication is pivotal to patient safety, and errors in drug administration are associated with mortality and morbidity. In this study, we assessed the factors contributing to the occurrence and reporting of medication errors from the nurse's perspective. In this descriptive cross-sectional study, we distributed a validated questionnaire to 367 nurses at a large public hospital and obtained a response rate of 73.4%. The questionnaire comprised 65 questions, including 29 on the causes of medication errors, 16 on the reasons why medication errors are not reported and 20 that estimated the percentages of the different medication errors actually reported. Informed consent was obtained from all participants, and the anonymity and confidentiality of participants' information were preserved throughout the process. This study received institutional review board approval. Descriptive statistics were used for data analysis. The main factors associated with medication errors by nurses were related to medication packaging, nurse–physician communication, pharmacy processes, nurse staffing and transcribing issues. The main barriers to the reporting of errors by nurses were related to the administrative response, fear of reporting and disagreements regarding the definitions of errors. Medication errors by nurses are related to medication packaging, poor communication, unclear medication orders, workload and staff rotation. To prevent medication errors, teamwork must be improved. All healthcare settings should emphasis awareness of the culture of safety, provide support and guidance to nurses and improve communication skills. We also recommend the use of integrated health information, including computerized drug administration systems. The limitations of this study include the potential for nonresponse bias associated with the sampling method. Further research is required to explore the complex and multidimensional causes of medication errors and review the responses of nurses regarding the errors reported.

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ASSESSING UNNECESSARY BLOOD CULTURE DRAWS IN MYELOMA INSTITUTE PATIENT POPULATION

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A large number of blood cultures (BCs) are obtained for the stem cell transplant/oncology patient population, a patient population in which the disease and treatment bring risk of infection. The process of obtaining BCs has the potential to put patients at risk of infection from venipuncture and central line handling. There is variation in practice between health care providers around this issue, such as ordering surveillance BC regardless of whether a patient's clinical condition requires BCs. This process improvement project used a before-and-after design. Medical and nursing staff received education on evidence-based BC ordering standards. Descriptive level data analysis compared the number and cost of BCs before and after implementation of the standardized ordering criteria. Orders for unnecessary BCs declined by >90% from an average of >200 per month to an average of <15 per month after implementation of the new standardized ordering criteria. The largest decrease coincided with medical staff turnover and it was sustained under the new leadership. Blood culture costs declined from over $20,000 per month to an average of less than $2500 per month. The number of negative blood cultures declined. Use of standardized criteria for determining when to order BCs is an effective way to reduce unnecessary and costly care. The lack of a policy to guide orders for BCs was thought to be a root cause; however, even without a new policy the outcomes improved with staff education on the new standards. Nurse involvement in process helps engage appropriate stakeholders, may lead to marked decreases in cost to the patient and institution without decreasing quality of patient care. Patients should benefit from decreased use of surveillance BCs, which will decrease potentially-painful peripheral blood draws, cost of care, and risk for skin or bloodstream contamination related to peripheral or central line sample collection.

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TREATMENT DECISION-MAKING AMONG PATIENTS WITH ADVANCED PROSTATE CANCER

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Approximately 164,690 men will be diagnosed with prostate cancer in the U.S. and 29,430 will die due to prostate cancer in 2018, making it the second leading cause of cancer death among men. The overall goal of this program of research is to heighten patient care for prostate cancer by understanding the decision-making

process and promoting patient empowerment to make informed choices. The innovation of this research is that it is one of the first interactive decision aids (DA) to exist for treatment decision-making in advanced prostate cancer. The purpose of this study was to explore a DA for patients with advanced prostate cancer to help facilitate informed, shared treatment decisions with their nurse/physician in a clinical setting. A pretest/posttest design using a mixed methods approach was used to measure three decisions over the course of advanced prostate cancer directed treatment for men in a cancer center setting. The DA included immediate computer-assisted Quality of Life–Patient Reported Outcome results and an interactive DA with decisional balance sheets provided by the oncology nurse. A phenomenological approach was used in this study's portion to capture DA acceptability by 35 patients/supporter pairs and the effect on their quality of life. Participants agreed that decisions can be complex and having a decision aid can help them be more aware of their personal values to assist in their treatment decision-making. Three themes emerged: 1) the decision aid assisted in treatment option understanding, 2) quality of life was very important, and 3) healthcare providers greatly influenced decisions. Treatment decisions among advanced prostate cancer patients, caregivers, and healthcare providers are complicated. These findings support the acceptability and the interactive nature of the DA to promote enhanced treatment decision making. The DA will assist patients in being better informed about their treatment and encourages greater collaboration between oncology providers and patients.

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EFFECTS OF AN EVIDENCE-BASED ACTION PLAN FOR CENTRAL LINE ASSOCIATED BLOOD STREAM INFECTION REDUCTION ON A UNIVERSITY TEACHING HOSPITAL HEMATOLOGY/ONCOLOGY UNIT

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Central line associated blood stream infection (CLABSI) prevention and intravenous (IV) maintenance that adheres to professional nursing organization standards and hospitals policy is of utmost importance for the successful care of hospitalized oncology patient. The cause of CLABSI is multifactorial and directly associated with patient safety, quality of care, sepsis, longer hospital stays, and increased costs. The unit experienced an increase in the National Healthcare Safety Network rate of 1.20 to 6.69 in the first three months of the year and had a total of 35 CLABSIs in 2016. Nursing assessment and audits of central line maintenance found a wide variation in practice, lack of adherence to standards and knowledge deficits. Variation in practice included missed bundle elements, lack of central line and dressing assessment, tubing changes. Unit performed audit compliance differed greatly from audit compliance performed by the vascular access team. The goal of this evidence based practice change was to stream line and standardize central line maintence amoung oncology nurses on a large university teaching hospital oncology unit in order to decrease CLABSIs. A comprehensive action plan was implemented including maintenance bundle auditing, standardized tubing changes, scrubbing hub campaign, and compentency check off. Other intervention included changes with blood cultures procedures, product evaluation, unit central line rounding, float nurse check off, monthly newsletter, and ongoing education. Additional support and auditing also was provided by the hospitals vascular access team. Fourteen CLABSI occurred in 2017 which represents a 40% decrease. Maintenance audits remain >90% compliant. Rounding, ongoing education and reinforcement is now built into daily practice for the oncology nurses. CLABSI causes are multifactorial and a comprehensive action plan is recommended to improve care. Ongoing vigilance is essential in the reduction of CLABSI.

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SYMPTOM CLUSTERS IN WOMEN WITH BREAST CANCER BEFORE ENDOCRINE THERAPY

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Aromatase inhibitor (AI) therapy is the mainstay of endocrine therapy for postmenopausal women with hormone receptor positive breast cancer. Women with breast cancer experience multiple concurrent symptoms or symptom clusters during AI therapy. Indeed, these symptoms are the most commonly reported reason for nonadherence to AI therapy. Therefore, it is important to identify the symptoms

that co-occur during AI therapy. Most symptom cluster studies selected predetermined symptoms by identifying the most common symptoms from across empirical studies. However, few studies have examined how symptoms cluster when evaluated using a comprehensive symptom assessment measure among postmenopausal women with breast cancer before and during AI therapy. This study's aim was to identify the most prevalent symptoms experienced by postmenopausal women with breast cancer before initiating AI therapy (baseline) and explore symptom clusters from a comprehensive symptom assessment. Symptoms were comprehensively evaluated in postmenopausal women (N=222) with breast cancer prescribed AI therapy alone using a list of 47 symptoms measured with the Breast Cancer Prevention Trial Symptom Checklist, Patient Assessment of Own Functioning Inventory, Brief Pain Inventory, Beck Depression Inventory II, and Profile of Mood States Tension/Anxiety and Fatigue/Inertia subscales prior to treatment. Exploratory factor analysis with promax rotation was used to explore symptom clusters. The most prevalent symptoms reported were cognitive problems (98.6%), anxiety (97.7%), fatigue (83.8%), depression (83.3%), breast sensitivity (76.1%), and general aches and pains (76.1%). Six distinct symptom clusters were identified among women with breast cancer before AI therapy including cognitive, pain, vasomotor, dyspareunia, bladder control, and sickness behavior. High correlation was found between the cognitive and sickness behavior clusters (r=.615). Moderate correlations were found between the cognitive and pain clusters (r=.387), the pain and sickness behavior clusters (r=.450), and the cognitive and vasomotor clusters (r=.364). Symptom clusters were found among women with breast cancer before initiating AI therapy. This finding may help in guiding symptom assessment and management in women with breast cancer during AI therapy. Future studies are needed to examine the trajectories and predictors of these symptom clusters in women with breast cancer during AI therapy. This was the first study to identify symptom clusters using a comprehensive symptom assessment measure among postmenopausal women with breast cancer before AI therapy.

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CHANGE OF SEXUAL FUNCTION AND ITS RELATED FACTORS IN PATIENTS WITH COLORECTAL CANCER AFTER SURGERY WITHIN SIX MONTHS

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Th purpose was to explore significant factors related to sexual function in patients with colorectal cancer (CRC) after surgery within six months. The incidence of CRC is increasing and patient is younger than before. Advanced multidisciplinary treatments has led to a substantial improvement in prognosis and survivorship, and then sexual function become one of the main factors for influencing quality of life for survivors. However, it has limited understandings and less been discussed on this sexual function for patients with CRC in longitudinal design and exploring its related factors by times. A longitudinal design was conducted by recruiting the CRC patients at colorectal surgical wards in a medical center in Taipei from 3rd January to 1st December in 2016. Participants were selected by purposive sampling. Data were collected during preoperative about one month (T0), and one-(T1) and six-month (T2) after surgery. Questionnaires included demographic information, disease-related characteristics, severity of symptom, Female Sexual Function Index (FSFI), International Index of Erectile Function (IIEF) and Type D Scale-14 Taiwanese version–revised (DS14-TR). Generalized estimating equations were used to explore change of sexual function and its related factors in patients with CRC after surgery within six months. A total of 99, 83, and 78 patients completed the survey at T0, T1 and T2, respectively. The result showed that the higher risk of sexual dysfunction in patients with CRC were in the first month after surgery (Odds ratio = 5.008；p = 0.004), older age (Odds ratio = 1.091； p = 0.002), female (Odds ratio = 35.170； p < 0.001) and receiving chemotherapy (Odds ratio = 3.899； p = 0.011). Sexual dysfunction is a common problem in patients with CRC after surgery. We should pay more attention on high risk population such as older age and female in the first month after surgery or during chemotherapy. It is suggested to regularly and actively assess the patients' sexual function for those with older age and who are female in the first month after surgery or during chemotherapy.

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SYMPTOMATOLOGY, HEALTH PERCEPTIONS AND QUALITY OF LIFE AMONG AFRICAN

AMERICAN ADOLESCENTS AND YOUNG ADULTS (AYAS) WITH CANCER

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Due to stark differences in five-year survival trends over the past three decades between adolescents and young adults with cancer (AYAs) ages 15 to 39 years and other age groups (pediatrics and older adults), there has been somewhat improved research focus recently on this group of individuals, with the intent of improving their overall outcomes. However, there is a dearth of research focused on African American AYAs. African American AYAs are at higher risk of experiencing poorer long-term outcomes than other AYAs with cancer. Data collected from a sample of 42 African American AYA cancer patients enrolled in a larger study of AYAs were analyzed to evaluate symptoms, functional status, general health perception, and quality of life so as to design appropriate interventions. Participants were recruited from an outpatient cancer center at a large academic medical center in the North-Eastern United States. Key measures included the Symptom Inventory, Karnofsky Performance Status scale, Global Quality of Life scale, and the Quality of Life Index - cancer version III (QLI). The QLI has 4 subscales which represent the health and functioning, social and economic, psychological and spiritual, and family domains of quality of life. Out of a possible 12 symptoms, the range of symptoms reported were between 4 and 10 (M=7.3, SD=2.5). The most common symptoms reported were diarrhea and constipation (61%), weight gain (45.2%), nausea and vomiting (42.9%), hot flashes (42.9%) and pain in the joints and bones (40.5%). On a scale of 0% to 100%, functional status scores ranged from 50% to 100% (M=82.3, SD=13.76). Additionally, on a scale of 1 to 10, overall health ratings ranged from 4 to 10 (M=7.26, SD=1.84). They rated their overall quality of life relatively high. Out of a possible score of 30, the mean score was 21.8, (SD=5.6). For the health and functioning subscale, the mean score was 20.9 (SD=6.1), the social and economic subscale mean score was 20.7 (SD=6.6), and for the psychological/spiritual and family subscales the mean score was 22.7 (SD=6.6) and 24.6 (SD=4.7) respectively. Thorough assessment of symptoms, functioning, and individual self-rating of health status is key in identifying appropriate nursing interventions that can help African American AYAs with cancer achieve optimal outcomes. It is also important to incorporate these domains when planning interventions.

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EFFECTS OF THE SPEED-FEEDBACK THERAPY ON CANCER THERAPY-RELATED COGNITIVE IMPAIRMENT IN PATIENTS WITH BREAST CANCER: A PRELIMINARY STUDY

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Cancer therapy-related cognitive impairment negatively impacts patients' quality of life. Although research has been progressed, treatment and management of this problem have not been developed. This study aimed to investigate the effects of the speed-feedback therapy on cancer therapy-related cognitive impairment in patients with breast cancer. Randomized controlled trial design was used in this study. After this study has been approved by the institutional review boards of Hiroshima University, participants were recruited through the flyer and the website. Eligible patients were women who had received chemotherapy within 10 years and were receiving hormonal therapy for breast cancer, and had symptoms of cognitive impairments. The study participants were assigned randomly to the intervention group (n=7), education group (n=5), or control group (n=5). The patients of the intervention group performed the speed-feedback therapy exercise which was a rehabilitation approach with bicycle ergometer connected a PC for four weeks and were explained about cancer therapy-related cognitive impairment with educational material. Primary endpoint was cognitive function (Functional Assessment of Cancer Therapy-Cognitive Function version 3: FACT-Cog), and secondary end point was the health related quality of life (Functional Assessment of Cancer Therapy-General version 4: FACG-G). High score indicate better cognitive function or quality of life. The data were collected at three point (T0: baseline, T1: two weeks after T0, T2: four weeks after T0). Since the sample size was very small, repeated measures ANOVA have been done for the intervention group and control group. There was a significant effect of time on perceived cognitive abilities that was a subscale of the FACT-Cog (p=0.006). The mean score changes of the intervention group and control group were 4.43±0.01 and 3.20±2.07, respectively. That means that the scores of both group were improved. Although there was no significant effect

other than this subscale, the interaction of group and time in functional well-being which was the subscale of the FACT-G was closed to significance (p=0.051). The intervention might be effective on cognitive function and quality of life in patients with cancer therapy-related cognitive impairments. This study suggested that a feasibility of the intervention should be improved, and implementation of the intervention to more patients was needed.

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IMPROVING CLINICAL OUTCOMES: EVIDENCE FOR MASSAGE IN INFUSION PATIENTS

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Complementary Alternative Medicine (CAM) is an emerging treatment option that many cancer patients use to deal with the multitude of side effects associated with cancer treatment. Massage therapy, a form of CAM, provided by an oncology-trained massage therapist is recommended by the Society for Integrative Oncology, but the quality of the evidence is low or very low. The outpatient infusion center offers massage to patients getting infusions; however, the effects of the therapy had not been evaluated. The infusion center launched this pilot project to evaluate the benefits of massage therapy in cancer patients for three common side effects of cancer treatment: pain, nausea and distress. Patients receiving cancer treatment with chemotherapy or immunotherapy in the infusion center had the option to participate in the existing program of massage therapy during their treatment visit. The massage therapists adhered to patient preference for hand, arm, or neck massage. The tool to measure the effects of massage therapy was an adapted form of the NCCN distress thermometer—a drawing that looks like an old-fashioned glass thermometer. Participants rated from 1 to 10 the severity of each side effect before the massage and after the massage. Of the 53 patients who received massage therapy and completed the measuring tool, 50 had complete data. Analysis of the data showed that the 23 patients who reported symptoms before receiving the massage had decreased symptoms after the massage. Average scores for pain, nausea, and distress decreased by 36%, 84%, and 47% respectively. Patients reported decreased pain, nausea, and/or distress after massage during treatment in the infusion center. The adapted thermometer tool provided a way to measure symptom effects of massage and the format may be an option to use in other projects that measure patient outcomes. The symptom improvements from massage in this project help to shine a light on the potential for benefits from other therapies patients may use to help fight their disease or manage side effects. Additional evidence published during and after the work of this project supports the use of massage in patients with cancer.

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PEDIATRIC ONCOLOGY NURSES' DESCRIPTIVE EXPERIENCES WITH PROGNOSIS-RELATED COMMUNICATION

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When a child is diagnosed with cancer, health care providers (HCPs) have the responsibility to educate parents about the diagnosis and treatment. Conversations generally include disclosure of prognosis, which is primarily considered the responsibility of the physician. Conversations occurring both before and after this discussion often involve nurses. Parents of children with cancer have indicated that they look to nurses to gain understanding of prognosis. While nurses clearly play an important role in this process, the pediatric oncology nurses' role has not been well-described nor have their experiences been reported. This mixed-methods study aimed to examine the experiences of pediatric oncology nurses with prognosis-related communication and its relationship to interprofessional collaboration, nurse-perceived quality of care, and moral distress. Nurses were asked to complete a one-time online survey, and had the opportunity to respond to three open-ended questions to provide additional insights into their experiences. Of the 330 nurses who responded to the survey, 14% provided responses to one or more open ended questions. An interpretive descriptive approach was used to analyze data that yielded 3 themes: Importance of Collaboration, Impact of Prognosis-Related Communication, and Delivery of Prognostic Information. Nurses described how collaboration, involving inclusion and communication between nurses and physicians, was critical when delivering prognostic information, and listed challenges invoked when nurses were not included in such conversations. Nurses valued disclosure of honest prognostic information to patients and parents, and listed the benefits of adequate prognostic disclosure including facilitation of decision making

and planning for the future. Nurses described the challenges that occurred when parents refused to accept poor prognostic information or when parents clearly had a misunderstanding of the child's prognosis. These situations were distressing to nurses as they described witnessing patient and parent suffering. Finally nurses listed both positive and negative approaches to sharing such information with families. Nurses must be empowered to engage in prognosis-related conversations. As the HCPs who are most intimately involved with patients and families, nurses have unique insights that other team members often do not possess. These insights can help support patients and families through these difficult conversations. More education needs to be provided to ensure that nurses feel comfortable and confident in being more active participants in the process.

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ACUTE PAIN ASSESSMENT IN SEDATED POSTOPERATIVE PATIENTS

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Acute postoperative pain represents a significant concern for surgical, and cancer patients and remains inadequately assessed and managed. In Post Anesthesia Care Unit (PACU), the self-reported Numeric Rating Scale (NRS) is considered the gold standard for the assessment of pain. The sole use in the PACU of the NRS for the assessment of acute pain can lead to inaccurate assessment and under-treatment of acute pain. In some instances the assessment of acute pain begins with a subjective scale, after patients are able to self-report pain. The purpose of this study was to evaluate and compare pain scores on two behavioral pain assessment instruments, the Non-verbal Pain Scale Revised (NVPS-R) and the Critical Pain Observation Tool (CPOT), to determine if either of these instruments is superior in adequately assess the presence of acute pain in postoperative sedated patients. crossover study design was used. The study was conducted in the Medical Services Administration at the Puerto Rico Medical Center. Upon PACU arrival, patient sedation levels were evaluated using the Richmond Agitation Sedation Scale (RASS). Acute pain was assessed using the CPOT (scored 0-8) and the NVPS-R (scored 0-10) at time points 0, 15, 30, 45, 60, 90, and 120 minutes. Descriptive statistics and mixed model regression analysis were used to compare pain score assessment between instruments. Findings suggest that NVPS-R and CPOT can assess acute pain in sedated PACU patients. Clinically significant increases in vital signs and respiratory indicators using the NVPS-R were not seen in patients with significant pain at different time points. The CPOT vocalization indicator was more frequent than physiological and respiratory indicators in detecting acute pain. Study data does not support the exclusive use of vital sign to assess acute pain, suggesting the superiority of the CPOT for the assessment of acute pain in sedated PACU patients. Despite an overall high correlations between total pain scores, findings suggest that physiological and respiratory pain indicators of the NVPS-R, measured over time in sedated patients, are not consistent in assess acute pain presence. More evidence are needed to identify optimal behavioral pain instrument for acute pain assessment in postoperative sedated patients who cannot self-report their pain.

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IMPROVING SAFETY AND DECREASING WORKLOAD DURING EXTREMITY CRYOTHERAPY

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Taxane chemotherapies are commonly used for solid tumor oncologic patients and commonly cause nail changes. Cryotherapy is a successful intervention to reduce this toxicity. At one large Cancer Center, using bags of ice was not efficient or safe due to leaking when ice melted. It also increased nurse workload. 48% of patients on Taxanes opted to use extremity cooling. A survey found 42% of the time water leaked on the floor, 14% of patients experienced challenges in applying the ice or independent mobility due to the application of ice; nurses reported care delivery delays because of extremity cooling and 26% of patients required multiple ice bag changes during their treatment. 14% of patients could not tolerate the cold of the ice. 9% of respondents had concerns for the patient's safety as a result of the current cooling process. A safe, feasible alternative to extremity cooling was sought as a result of these challenges. This presentation will summarize a pilot of a reusable frozen gel pack within two infusion units to identify impact on safety workload. Reusable gel bags were procured. During the 4-week pilot, all patients receiving cooling were provided reusable frozen gel bags instead of ice. Bags were changed at 3 hours,

or upon patient request if they felt warm. After use, bags were cleaned with hospital-grade disinfectant wipes and re-stored in a unit freezer for future use. 162 post-surveys were collected; 75% (n=122) opted for extremity cooling. A 12.8% reduction in cooling bag changes was noted; there were no application challenges or leakage. There was more than a 50% reduction in mobility challenges, a 100% reduction in care delivery delays, and only 5% of patients couldn't tolerate the cold. There was an 80% reduction in safety concerns. This pilot demonstrated an effective and safe solution to providing extremity cryotherapy to patients receiving Taxanes. Increasing utilization may be a result of the easier management for nurses and patients. There were reductions in workload (i.e. bag changes) and safety concerns. It is crucial that nurses can offer interventions to minimize toxicity from treatment without impacting safety and workload.

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THE RELATIONSHIP BETWEEN STRUCTURAL AND PSYCHOLOGICAL EMPOWERMENT AND PARTICIPATION IN CONTINUING PROFESSIONAL DEVELOPMENT BY ONCOLOGY NURSES

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Advances in treatment modalities, together with a predicted workforce shortage, mean critical thinking and lifelong learning are increasingly important elements of nursing practice. Despite the availability of continuing professional development (CPD) opportunities, the level of participation in CPD by nurses varies. Aim The aim of this study was to identify structural and psychological factors that influence oncology nurses' participation in and outcomes from CPD activities. An online survey was distributed to all 1100 registered nurses who were members of the Cancer Nurses Society of Australia (CNSA). The survey included measures of structural and psychological empowerment based on Kanter's (1977, 1993) Theory of Structural Power in Organisations and Spreitzer's (1995) Psychological Empowerment Theory. An investigator developed measure of CPD participation and Meretoja's Nurse Competence Scale measure of perceived self-competence were also included. A total of 162 nurses (14.8%) responded to the survey. Multivariable regression analyses identified that current role, years of cancer nursing, highest qualification, and structural empowerment explained 33% variance of the variance in CPD participation. Additionally, CPD participation accounted for 13.1% of the variance in perceived self-competence. The workplace environment influences participation in CPD, and this in turn influences self-reported competence of registered nurses working in cancer care. Actions which create empowering work environments have the potential to improve nurses' professional behaviours and competence.

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A CLINICAL NURSE'S ROLE IN IMPROVING THE CARE OF THE BMT RECIPIENT RECEIVING HIGH DOSE CHEMOTHERAPY

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HCT recipients undergo high dose chemotherapy in preparation for transplant with variable emetogenic effects. We recently changed our IV Busulfan administration schedule from Q 6 hours dosed at 0.9 mg/kg (total of 16 doses) to Q 24 hours dosed at 3.6 mg/kg (total of 4 doses). For those receiving Busulfan Q 6 hours, the anti-emetic pre-medication was Ondansetron 16 mg BID resulting in effective anti-emetic therapy in the majority. When the Busulfan administration was changed to Q 24 hours, no change in anti-emetic therapy was initiated. The nurses observed an increase in nausea and more frequent requests for therapy for breakthrough nausea. The purpose of this process improvement project was to evaluate nausea, vomiting and use of anti-emetic therapy with Busulfan administered Q 24 hours and make a recommendation to improve anti-emetic therapy. Additionally, this project can become a model for implementing future practice changes. The nurse (first author) first reviewed the National Comprehensive Cancer Network (NCCN) Guidelines for anti-emetic therapy and presented her review and patient observations to the Standards Committee for anti-emetic therapy .The Standards Committee is a multidisciplinary team that reviews current practices and facilitates the implementation of changes which empower nurses to initiate practice changes. Nurses were provided education on the NCCN guidelines and prior to revising the electronic orders, the nurses requested the addition of Fosaprepitant and Dexamethasone for those receiving Q 24 hour Busulfan dosing. Thirteen charts

were retrospectively reviewed to evaluate the efficacy of and compliance with the NCCN guidelines. Despite staff education during the time to revise the electronic orders, 46% of HCT recipients receiving Q 24 hour Busulfan dosing did not receive the NCCN recommended anti-emetic therapy with one patient requiring three additional anti-emetics. Fifty-three percent received the NCCN recommended anti-emetics. In this group, one required no additional anti-emetic therapy and six required another one to two doses of prn anti-emetics. It is difficult to determine if the change in anti-emetics had an impact on the need for additional anti-emetics. BMT nurses must continue to update their knowledge, review standards, and evidence based guidelines to practice effectively in the fast paced and dynamic environment of transplant. Assessing and evaluating changes in practice and the impact on the patient experience is critical to improving patient care.

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HIGH-SENSITIVITY MODIFIED GLASGOW PROGNOSTIC SCORE (HS-GPS) AND NEUTROPHIL-LYMPHOCYTE RATIO (NLR): PREDICTORS OF OVERALL SURVIVAL IN PATIENTS WITH STAGE IV PANCREATIC CANCER

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While there are more treatment options available to patients in recent years, pancreatic cancer is still one of the most lethal cancers with a 5-year survival of 8%. This is because more than half of the pancreatic cancer cases are diagnosed at a late/distant stage, whose survival rate is about 3%. Consequently, patients may not have an opportunity of surgery at the time of diagnosis. Particularly, patients with stage IV pancreatic cancer often experience not only much shorter overall survival rate but also poorer quality of life compared to patients with early stages or other types of cancer. Recent development of measurement may be beneficial and potentially sensitive to predict the disease prognosis. High-sensitivity modified Glasgow prognostic score (Hs-GPS) uses the values of C-reactive protein (CRP) and albumin to predict prognosis and survival based on the body's response to the systemic inflammation. The neutrophil-lymphocyte ratio (NLR) may predict survival since lymphocytes play a key role in destroying cancer cells. The purposes of this study are to 1) describe the Hs-GPS and NLR in pancreatic cancer patients via retrospective chart review using the electronic health records and 2) examine the differences of survival rates using these two measurements in patients with stage IV pancreatic cancer compared to the patients with stage I, II and III pancreatic cancer. The study has been approved by the Institutional Review Board (IRB#201703076) to retrospectively review the charts of the gastrointestinal cancer patients for the past 5 years. Data on CRP, albumin, neutrophils, lymphocytes, cancer stage and demographic information will be collected. Inclusion criteria are the patients who are 18 years or older with pancreatic cancer. Hs-GPS and NLR will be calculated to compare differences between stage IV and all other stages. Data collection is in progress. Analyses will be completed by the time to present the study. Healthcare providers will adjust the plan of care for their patients, and patients' quality of life will be improved. The results of the study will provide information about utility of Hs-GPS and NLR to predict survival rate in pancreatic cancer patients to guide healthcare providers with various treatment options as well as preserve patients' quality of life.

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NATIONAL SURVEY OF NURSES ON THE IMPLICATIONS OF DIAGNOSTIC PROCEDURES AND RISK STRATIFICATION IN THE CARE OF PATIENTS WITH ACUTE MYELOID LEUKEMIA

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AML (acute myeloid leukemia) requires an interprofessional approach to diagnosis, risk stratification, and treatment. Providers, cytogeneticists, hematopathologists, and nurses are critical to comprehensive diagnosis, patient/caregiver education, and overall management of patients with AML. However, it is unclear the level to which health care professionals comprehend and apply advances in principles of AML diagnosis, risk stratification and treatment decision making. A cross-sectional, web-based survey of members of the American Society of Hematology, the American Society for Clinical Pathology,

and Oncology Nursing Society was conducted to ascertain self-reported knowledge of diagnostic procedures, risk stratification models, and treatment options for patients with AML. Based on findings, an interprofessional, AML-focused educational summit was created. A total of 1,246 individuals participated in part or all of the survey; complete survey data were collected from 138 registered nurses, advanced practice nurses, and clinical nurse leaders, with 53% from academic medical centers. Several care concerns emerged from the responses of nurses. Just over one third (36%) reported molecular studies as rarely or sometimes impacting management, and 21% felt that cytogenetics only rarely or sometimes impacted disease management—indicating that implications of molecular and cytogenetic studies on risk stratification and treatment is not fully understood. When reporting comfort level with involvement in diagnosis interpretation, over 30% of nurses reported having no comfort level at all classifying and risk stratifying AML (32%), interpreting cytogenetic reports (34%), and identifying favorable and poor prognostic abnormalities (35%). Results indicate opportunity for nursing-focused education on cytogenetic and molecular features of AML and their implications on disease prognosis and treatment decisions. Educational summits yielded a 32% and 43.6% increase in self-reported ability to diagnose and classify AML, and risk stratify and individualize treatment selection for patients with AML, respectively (n=56). Nursing's comprehension and application of diagnostic and risk stratification principles are critical to treatment decision making and patient education. As diagnostic testing and treatment options evolve, nurses' comprehension of diagnostic procedures must extend beyond hematologic laboratory analysis and bone marrow biopsy/aspirate interpretation. Findings indicate an opportunity to close knowledge gaps and provide education specific to diagnostic procedures, cytogenetic and molecular features of AML, and their implications for treatment.