PLEURX CATHETERS VERSUS TRADITIONAL CHEST TUBES FOR MALIGNANT PLEURAL EFFUSION: AN OUTCOMES MEASUREMENT.

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The use of PleurX™ Pleural catheter, a long term indwelling catheter for management of recurrent malignant pleural effusions (MPE) was recently introduced in this NCI designated Comprehensive Cancer Center. Treatment of MPE was managed in the past by chest tube (CHT) insertion and drainage often using video assisted thorascopy (VAT) and mechanical and/or chemical pleurodesis, with varying success rates. At our institution, CHT placement involved an admission to the hospital, average length of stay (LOS) of 6.5 days, at an average hospital cost (HC) of $41,000. In addition, patients experienced pain often requiring patient controlled analgesics (PCA). The introduction of the PleurX™, which in previous studies allowed for outpatient management, has offered another option in the management of MPE for cancer patients. Previous studies have shown that these catheters are effective at relieving dyspnea, decreasing HCs, and reducing significant discomfort experienced by patients primarily related to a smaller, more flexible PleurX™.

The purpose of this presentation is to describe this Cancer Center’s experience using the PleurX™ during the first 12 months of implementation. This will include outcome measurements of LOS, HCs, pain and use of analgesics, complications, and home management issues in this group of patients’ compared to patients who had received traditional CHT management.

An outcomes database was developed with approval of the Institution’s Internal Review Board (IRB). Outcome measures from an equal group of patients managed with CHT and PleurX™ were compared. A case scenario approach will be utilized to provide a review of a typical patient’s PleurX™ treatment course.

An analysis of the outcomes measurements will be completed. Based on these results, nursing recommendations will be developed and included in patient & family and staff education about this new therapy.

As members of the multidisciplinary team, oncology nurses are in a unique position to study the impact of new treatment modalities on patients and associated nursing care. This review can help to quickly adapt new teaching materials, not only for patients and their families, but also for staff. Development of an ongoing database will allow for continued monitoring of the effectiveness of this new technology.

DEVELOPMENT OF A HOSPITAL-BASED CLINICAL RESEARCH DATABASE.

Rosemarie Tucci, RN, MSN, AOCN®, Lankenau Hospital, Wynnewood, PA.

Investigator-initiated oncology research in a community hospital requires data collection best completed with nursing oversight. Oncology nurses interface with basic scientists, physicians and computer programmers to identify datapoints to be collected, their importance to disease initiation and clinical outcome, to work in building the program and then test it.

As community hospitals become hybrids of private practice and hospital-based physicians, data collection for research is difficult. Nursing is the commonality of all settings and centralizes data collection between practices and the hospital itself. Whether finding an existing program that will answer needs or building one, a multi-disciplinary team is needed to get the right one and nursing is a key member.

The nursing representative was identified by the multi-disciplinary team as the immediate contact and “go-to” person for questions and testing of models. All information to be collected was discussed between clinicians, basic scientists and the nurse and then formatted into spreadsheets for use by the computer programmers. As the system became functional, the nurse populated the system with practice patients to test the system for: ease of data input, availability of data in routine MD charting and querying the data for missing datapoints and expected research questions.

Oncology clinical research requires specialized knowledge to understand the unique patient populations and the many endpoints that can be used to evaluate cancer treatments. The Clinical Cancer Analytic Research Database (CCARD) was developed to collect data on 6 disease sites, with a focus on the data being information needed to answer potential questions for combined investigator-initiated basic science and clinical research. Additional sites will be added as time and needs arise.

As community hospitals grow, many begin to adopt an academic model, which includes investigator-initiated research. Building research programming that responds to the needs of basic scientists and clinical physicians needs a point person who has knowledge that bridges the knowledge realms of computer programmers and cancer specialists. The oncology nurse fits that role best, as someone who can speak to clinical issues in lay-person terms.
ferred recognition items. During Nurses’ Week, nursing leaders threw a mocktail party (cocktails without the ETOH) and the Vice President of Nursing and Cancer Center Director distributed OCN® pins to certified nurses. Certified nurses were also recognized for their accomplishments during tumor board. Names of certified nurses were published in Nursing Spectrum. Perpetual plaques were ordered for each unit to recognize certified nurses. ONCC employer recognition plaques were ordered for the three units that had greater than 50% of nurses certified. A “100% party” was held to recognize the three units that had achieved 100% OCN® certification. Certified nurses were highlighted in cancer program newsletter, hospital newsletter, and health care team newsletter. The 2007 ONCC Employer Recognition Award application for recognizing certified nurses was submitted.

Small steps as outlined above, when taken together, play an important role in moving an entire cancer center forward through improved professionalism, morale, and celebration. Senior nursing administration has supported this project and has agreed to financially support OCN® review course as well as the OCN® test for those who pass. This concept has also been adopted by other departments within the hospital.

Similar to the first landing on the moon, this project is the beginning of a much larger vision. To value certification is to value professional oncology nurses who take the challenge, make the leap, and positively impact oncology patient care.

1856

ALL A-BOARD: THE EVIDENCE BASED PRACTICE JOURNEY. Cynthia Briola, BS, RN, OCN®, Andrea M. Barsevick, DNSc, RN, AOCN®, Karon Martyn, RN, BSN, OCN®, Nancy Fell, RN, OCN®, Kathleen MacDonald, RN, BSN, OCN®, and Therese Innamarato, RN, OCN®, Fox Chase Cancer Center, Philadelphia, PA.

Among all health care disciplines, the value of basing health care practice on high quality evidence is unchallenged. However, due to wide variation in educational programs of recent RNs and high numbers of experienced nurses without education about evidence-based practice (EBP), many nurses do not know how to engage in this practice.

The EBP Council at a comprehensive cancer center accepted the challenge and planned mandatory EBP education for all RNs. The goals of the program were to: 1) support a culture shift from “tradition” toward EBP, 2) educate nurses about EBP principles, 3) increase nurses’ comfort accessing EBP resources, and 4) incorporate evidence into clinical practice.

A four-phase educational program began in January 2006. In Phase I, a nurse educator presented an overview of EBP including basic principles. Embracing EBP includes the development of a new skill set. In Phase II, EBP Council members conducted an interactive guided poster presentation of five EBP nursing projects. Small groups of nurses gathered around each poster; council members used a question-answer approach to conduct discussion of each project. In Phase III, librarians introduced nurses to EBP resources such as online search engines and taught principles of conducting a search using nursing examples. In Phase IV, groups of nurses will conduct unit-based EBP projects, with all nursing staff encouraged to participate. To assist the units, guidelines are available; EBP Council members will assist with projects. Topics will be identified by January, 2007 and completed by April 2007. Posters will be displayed in April and May 2007.

Attendance at mandatory sessions is being computed. Education on demand or by taped-video sessions will ensure that future nursing staff will be brought up to date. Criteria for evaluation include the number of clinical areas and the number of nurses on each shift who participate. Evaluation criteria for posters will include formulation of a search question, evaluation of level of evidence, and integration into clinical practice.

The challenge to shift our nursing culture from “traditional” to EBP was exciting. We look forward to evaluating the impact on oncology nursing practice and patient outcomes in the coming year.

1858

REDUCING NOISE LEVELS ON A BUSY ONCOLOGY UNIT. Kira Rashba, BSN, RN, and Reedy Anita, RN, MSN, OCN®, Johns Hopkins Hospital, Baltimore, MD; and Ilene Busch-Vishniac, PhD, James West, PhD, and Mark McLeod, Johns Hopkins University, Baltimore, MD.

Hospital noise levels have increased in recent years. This is partially attributed to technology such as monitors, infusion pumps and bed alarms. Alarms, combined with call systems and staff conversations, make for a noisy environment. The World Health Organization (WHO) and Environmental Protection Agency recommend noise levels less than 40-45 decibels (dB) during the day and 35dB at night. Elevated noise levels make it difficult to hear conversations between health care providers, increasing the risk for medical errors. Higher noise levels also cause stress among health care workers and patients have difficulty resting. Oncology units are at a particular disadvantage as a result of infection control practices requiring hard surface materials.

Noise level on this busy NCI-designated comprehensive cancer center’s hematology oncology unit was irritating and caused difficulty on morning rounds and throughout the day. Patients complained of seemingly constant alarms, intercom calls and voice noise. Noise levels on the unit were measured at 70dB, about that of a street car passing, well above the WHO recommendations. The purpose was to decrease sound levels on the unit.

Noise reduction panels were designed by acoustical engineers and were approved by nursing, infection control and housekeeping. Two inch fiberglass pieces were covered with sound absorbing materials and were installed on walls and ceilings of work areas. Panels were designed to be easily removed and cleaned.

Acoustical engineers measured noise levels before and after the installation of noise panels. Quantitative and qualitative measures were taken: noise levels and reverberation times were measured and patient and staff surveys were completed. Quantitative measures showed that after sound panel installation noise levels dropped by more than 15 dB and reverberation times decreased by nearly a factor of three. Both staff and patient surveys demonstrated a lessened perception of noise.

After installation of noise reduction panels, both patients and staff realized a new, quieter environment. Hospitals can intervene to decrease the amount of environmental noise, thus decreasing the risk of medical errors, stress of staff and interruption of rest in the hospitalized patient.

1859

INCREASING PATIENT WOC NURSE RESOURCES IN AN ERA OF COST CONTAINMENT. Constance Ellis, MS, RN, CWOCN, OCN®, University of Texas M.D. Anderson Cancer Center, Houston, TX.

This poster/podium presentation will discuss how two Wound, Ostomy Continence nurses as a major oncology institution extended the services of the certified WOC nurses at their institution and in their community. This information should serve as a guide for other nurses facing the same problem. The problem, an increase in the demand for the expertise of the WOC nurses services and the lack of educated nurses or time or funds to send them to the WOC Nurse Education Programs, led to the development and presentation of a “Basic Ostomy and Wound Care Workshop” (Bows).

These 8 hour workshops were designed and marketed (via inhouse brochures, free journal advertising, and the internet) to nurses in hospital, outpatient, long term care, and home care settings of the Hous-
ton metroplex. The course fee of $75 covered a continental breakfast, lunch, course materials and CNE credit.

The content of the workshop was divided into 2 four hour segments. The AM portion focuses on ostomy care covering general principles of assessment and management of patients undergoing GI and GU ostomy surgery. Suggestions are given for dealing with simple stoma and peristomal complications. Each participant prepared and wore a pouch until the end of the day. The second segment reviewed basic wound assessment, management and documentation focusing on pressure ulcers and lower extremity ulcers. Using a gaming technique/case study, wound care products were reviewed and the participants were rewarded prizes for their participation.

BOW’s has now been presented 10 times with 200 nurses attending. Informal surveys of certified WOC nurses in hospital and non-hospital settings report an increased number of patient needs being met in a more timely manner, decreased stress of the CWOCNs and increased job satisfaction in the newly educated nurses.

Our oncology patients being treated with surgical interventions such as ostomies have psychosocial and physical needs require knowledgeable and skilled nurses. These workshops open the door to resources for those nurses and encourage them to develop new skills for their patients.

1865
SEXUALITY AND CANCER: HOW ONCOLOGY REGISTERED NURSES ASSESS PATIENTS’ SEXUALITY IN CLINICAL PRACTICE. Joann Mick, RN, MSN, MBA, AOCN®, UT M.D. Anderson Cancer Center, Houston, TX.

Sexuality can be negatively affected by cancer when illness or treatments cause disturbances in self-concept and/or body image or result in difficulties with sexual function.

A diagnosis of cancer raises critical issues regarding sexuality that must be assessed, including: motherhood, fatherhood, femininity, masculinity, and fertility.

A hermeneutic phenomenological approach was used to explore oncology nurses’ experiences of performing sexuality assessments when caring for oncology patients.

The research was conducted at a large, comprehensive cancer center in the southwest United States. Data were gathered through a sequence of audio taped interviews of 20 practicing oncology nurses, which were transcribed and analyzed.

Study results revealed that sexuality assessment is a dilemma that nurses face in their practices. Most nurses verbalized understanding of the importance of sexuality assessment. While nurses were able to ask patients for information about many other sensitive issues, personal constraints often prevented them from addressing the topic of sexuality. A list of identified, often self-imposed, barriers was revealed that prohibited nurses from assessing patients’ sexuality. Nurses’ practices regarding sexuality assessment occurred in a milieu that consisted of their conceptualization of sexuality, personal world-views, and individual efforts to search for a comfort level that would make discussing sexuality more feasible. Most nurses openly admitted they did not do a good job with sexuality assessment. Some nurses were able to offer ideas or suggestions to improve nursing practice with the sensitive topic of sexuality.

Evidence derived from this study indicated that simple, short term educational programs will be ineffective in overcoming the major barriers that nurses identified regarding the opportunity and ability to initiate sexual assessment. Programs to increase sexuality assessment must address factors, such as nurses’ personal comfort with sexuality, individual knowledge levels, and language skills to enable routine initiation of dialogues with patients about sexuality. Programs need to be ongoing in nature and nurses must be supported as they reframe their concept of sexuality and engage in a new skill.

Research that identifies strategies to enhance perceived facilitators and decrease perceived barriers related to nurses’ assessment of patients’ sexuality concerns should continue to be an essential goal for nursing.

Funding Source: Oncology Nursing Society

1877
PELVIC AND VAGINAL RECONSTRUCTION: THE ROLE OF THE AMBULATORY CARE ONCOLOGY NURSE. Nasrin Vaziri-Kermani, RN, CPSN, Memorial Sloan-Kettering Cancer Center, New York, NY.

Certain advanced cancers of the vagina, ovaries, rectum, and vulva require extensive surgical resection which often leaves the patient with a large surgical defect in the pelvis, perineal, and vaginal region along with emotional scarring. Specialized reconstructive procedures are now available to correct the surgical defect. Patients undergoing these complicated procedures require extensive preoperative and postoperative education and psychosocial support. Oncology nurses play an essential role in helping patients and their families meet these needs and in ensuring they have a smooth transition from their hospital stay to their home care setting.

Oncology nurses must be well informed about the complex issues related to pelvic resection followed by pelvic and vaginal reconstruction to provide optimal patient care. Experienced nurses play an important role in sharing their knowledge and educating those nurses who have less experience with regard to the numerous physical, psychosocial, and educational needs of these patients. This presentation will describe how nurses can best meet the needs of these patients.

Nursing interventions focus on continuous physical and psychosocial assessment and patient and family education. Nurses need to prepare patients for what to expect postoperatively and how to care for themselves at home. Issues surrounding potential changes in body image, physical and sexual activity, and altered sensation at the surgical sites need to be reviewed. Depending on the specific surgical procedure, education in ostomy and urostomy care may be indicated as well as care of the flap. Patients should be aware of potential complications including ileus, flap loss, and infection. Patients are also at high risk for developing emotional problems including depression, anger, or disappointment and may require a referral for counseling.

Upon patient discharge, the nurse makes frequent follow-up phone calls and schedules postoperative visits as needed to allow ongoing evaluation of the patients’ physical and emotional progress and to make appropriate referrals as indicated.

This information will provide oncology nurses with a more thorough understanding of the specific needs of this patient population and the appropriate nursing intervention to adequately meet these needs.

1880
IMPROVING THE QUALITY AND SAFETY OF CARE FOR PATIENTS RECEIVING HACE. Jean Imler, RN, Queen’s Medical Center, Honolulu, HI; Carrie Guyette, BSN, Oregon Health and Science University, Portland, OR; and Joanne Itano, PhD, University of Hawaii, Honolulu, HI.

Hepatic artery chemoembolization (HACE) is commonly used to treat unresectable hepatocellular carcinoma (HCC). To many oncology nurses, HACE is an infrequent treatment procedure with a complex pre-procedure protocol requiring a high degree of coordination with the MD office, radiology, IV team, pharmacy and nursing staff. This categorizes HACE as a low volume, high risk procedure.

Increase the quality and safety of care for patients receiving HACE by improving nursing staff knowledge of the care of patients receiv-
ing HACE. The PDCA (Plan, Do, Check, Act) model was used to guide this project.

Based on extensive review of literature, a 30 minute in-service was prepared on liver cancer, its treatments, and nursing care of the patient receiving HACE pre- and post-procedure and important discharge instructions. The in-service was presented 3 times covering all shifts and 50% of the nursing staff attended. Food was provided to encourage attendance.

Evaluation consisted of a pre and post test and a demographic section to gather data on years of experience and previous experience with HACE patients. The pre and post test measured knowledge related to the care of patients receiving HACE. There was a 34% increase from pre to post test scores. The data was also analyzed by years of nursing experience and prior experience with patients receiving HACE. An increase in knowledge in all groups was observed.

Based on the success of this project, the care of the patient receiving HACE has been added to the annual competency assessment of all RN staff and to the orientation check list for all new RN hires. A copy of the in-service materials was provided to all staff and the author is identified as the unit resource. The next step is to meet with the radiology scheduler, MD offices and bed control to ensure timely admission of patients receiving HACE. The final phase will be to monitor the impact of this intervention on patients admitted for HACE, i.e. delay in procedure, increased length of stay and increased time spent by nursing staff to coordinate care.

1881 DEVELOPMENT OF A TEACHING TOOL FOR PATIENTS RECEIVING BRACHYTHERAPY RADIATION AND NON-RADIATION NURSES. Donna Stamatis, RN, BSN, OCN®, and Sheila Brown, RN, BSN, OCN®, Mass General Hospital, Boston, MA.

Brachytherapy or high dose radiation has been around for 15-20 years. With new technology it is now done in an outpatient setting. Due to these changes, nurses in general have very little experience with the new technology. There was a need for communication between radiation nurses and others in the cancer center.

To provide communication through a teaching model on radiation brachytherapy for nurses who care for these patients as they travel through the cancer center. Developed booklet for teaching. These were implemented for teaching patients with cervical, endometrial, and prostate cancers. The ability to provide information to nurses outside of radiation oncology in order to work collaboratively.

Teaching tool proved invaluable to patients and non-radiation nurses. Patients had better understanding of their treatment and potential side effects. Nurses felt more comfortable with this population and were better able to understand side effects and symptom management.

Patients receiving brachytherapy require teaching and symptom management which will provide continuity of care throughout the cancer center. This requires knowledge and understanding of all involved in their care.

1883 IMPLEMENTING AN ANTINEOPLASTIC HYPERSENSITIVITY PROTOCOL: A NURSING PERSPECTIVE. Carol Williams, RN, BSN, OCN®, and Shannon Phillips, MS, RN, AOCNS, James P. Wilmot Cancer Center, Rochester, NY.

Many cancer patients receive medications that have the potential to cause hypersensitivity or anaphylactic reactions, specifically certain chemotherapy and biotherapy agents. Efficiently managing these reactions is critical to the prevention of patient injury or death. This management can be accomplished by providing nurses with a protocol containing specific drug information, standing orders, and a kit containing emergency medications and supplies.

The purpose of this project was to evaluate nursing staff knowledge about, use of, and satisfaction with a protocol to manage hypersensitivity/anaphylactic reactions to antineoplastic agents. The protocol, which includes a requirement to enter an event report for tracking purposes, was developed by pharmacy and approved by the medical and nursing leadership of a large outpatient cancer treatment center in Western New York/Finger Lakes Region.

Data was obtained from nursing staff via an anonymous self report survey. Response rate was 100% (N=18). Questions included knowledge of protocol, use of protocol in the last 6 months, and perceptions of change in practice since implementation of the protocol. Additionally, event reports for all hypersensitivity/anaphylactic reactions were reviewed in the six months since protocol implementation (N=26); agents were 38% rituximab, 35% taxanes, and 27% others.

The majority of nurses (67%) reported having read the protocol and knew the location of the protocol and kit. The majority of nurses (89%) reported that the protocol allows for faster administration of emergency treatments, has increased their awareness of potential for reaction (72%), and has increased their comfort level with administering chemotherapy/biotherapy (77%). Twelve nurses (67%) reported caring for a patient with a reaction in the past six months, 11 acknowledged using the protocol and 10 entered an event report.

Survey findings indicate the nursing staff are satisfied with the protocol and report a positive impact on their practice. Staff use of the protocol and the generation of an event report needs to be increased to 100% of the time when a patient experiences a reaction. Overall, implementation of the protocol has been successful, and further education will be provided based on project results.

1890 ASSESSING NURSES’ ATTITUDES TOWARD DEATH AND CARING FOR DYING PATIENTS. Michelle Lange, BS, RN, OCN®, Bridgette Thom, MS, and Nancy Kline, PhD, RN, CPNP, FAAN, Memorial Sloan-Kettering Cancer Center, New York, NY.

Oncology nurses care for patients in all stages of disease, from diagnosis to death. Patients at end of life present unique challenges, from both emotional and physical perspectives. As previous research suggests, implementing an educational program tailored to oncology nurses’ needs may be useful in helping to provide quality end of life care. However, prior to designing, testing, and implementing such a program in a hospital setting, it is necessary to first determine how the nurses employed there feel about caring for dying patients.

The purpose of this study was to gain insight into the issues that affect, challenge, and concern oncology nurses when caring for dying patients, and to make recommendations for an appropriate educational intervention to be developed and tested.

The Nursing Role Effectiveness Model is based on the structure-process-outcome model of quality care. The model analyzes the nurse and patient variables that may impact nurses’ role performance and subsequently influence patient outcomes. Nurse structural variables, such as education and work experience, are shown to have positive effects on communication, contributing to improved patient outcomes.

Registered nurses employed throughout the hospital were invited to complete anonymous, voluntary surveys that consisted of two valid and reliable instruments, the Frommelt Attitude toward Care of the Dying scale (FATCOD form B) and the Death Attitude Profile Revised (DAP-R), and a brief demographic questionnaire. The Kruskal-Wallis and the Mann Whitney U tests were used to compare differences among demographic groups, with post-hoc testing using the Tamhane and Dunnett T3 tests.
Preliminary findings indicate that age and years working at the institution appear to be strong influences on attitudes towards death and caring for dying patients. RNs with previous work experience in caring for dying patients have a more positive attitude toward caring for these patients, while less positive attitudes toward caring for dying patients correlated with more fear and avoidance toward death. If the results remain consistent at the time of final analysis, recommendations for an end-of-life educational program will be developed.

1894

MANAGEMENT OF TRIAPINE-INDUCED METHEMOGLOBINEMIA: A CASE STUDY. Aiko Kodaira, RN, MS, OCN®, and Maura Kadan, RN, BSN, Johns Hopkins Hospital, Baltimore, MD.

Triapine is a novel ribonucleotide reductase inhibitor that has been tested in various phase I and II clinical trials to treat both solid tumor and hematological malignancies. Triapine administration can cause methemoglobinemia, and can be detrimental in people with G6PD deficiency. On the leukemia unit at this NCI designated Comprehensive Cancer Center, nurses became aware of several significant cases of hypoxemia accompanied by transient methemoglobinemia in patients without G6PD deficiency. In these patients, the monitoring parameters and optimal management for this altered state of hemoglobin have not been determined. Clear guidelines for managing these patients are necessary.

The purpose of this case study is to identify and explore key factors of nursing management for triapine induced methemoglobinemia in patients with myeloproliferative disorders (MPD), chronic myelogenous leukemia in accelerating phase (CML-AP) or blast crisis (CML-BC), and aggressive chronic myelomonocytic leukemia (CMML) in order to prevent, monitor, and manage the symptoms.

One patient’s episode of triapine-induced methemoglobinemia is used as an example to highlight the major challenges in managing this issue in the above patient populations. A literature review was conducted to obtain existing information regarding this complication.

Throughout the case study, the patient’s symptoms, oxygen requirements, lab values, and medical and nursing interventions are analyzed. It is clear that management of methemoglobinemia is particularly challenging in these patients due to the high number of blast cells and associated anemia.

In this patient population, some unique issues, such as leukostasis, hyperleukocytosis-associated anemia, limitation of red blood cell transfusion, and the increased tendency of capillary leak emerged. Additional questions, such as whether or when a serum methemoglobin level should be checked, or when the antidote - methylene blue - should be administered, are also discussed. This case study provides nurses an opportunity to learn about this lesser known, but serious, side effect of triapine. It also provides nurses with the chance to critically analyze these phenomena in this highly unique and complicated patient population, and to standardize the interventions for a more consistent approach in managing triapine-induced methemoglobinemia.

1896

ASSESSMENT OF RECOVERY POST TRAM (TRANSVERSE RECTUS ABDOMINIS MYOCUTANEOUS) FLAP BREAST SURGERY. Deena Dell, MSN, RN, AOCN®, BC, Carolyn Weaver, MSN, RN, AOCN®, Jeannie Kozempel, PT, MS, and Andrea Barsevik, RN, DNsC, AOCN®, Fox Chase Cancer Center, Philadelphia, PA.

Preparing patients about what to expect after TRAM flap breast reconstruction is critical to recovery. A literature review revealed a lack of studies examining recovery. Patients are usually told that they will be able to return to previous activities in 6 to 8 weeks although the evidence base for this prediction is lacking. Quality, effective nursing care includes providing patients with a realistic expectation of recovery based on evidence.

Study objectives included: determining the duration and intensity of pain and interference with activities at 4 and 8 weeks after TRAM breast reconstruction; identifying interventions which aid in recovery; and determining the effect of nursing education/information on the nurse sensitive patient outcome of patient satisfaction.

Roy’s Model of Adaptation provided the conceptual framework. Providing patients with evidence-based information and effective pain management should promote adaptation while lack of knowledge and prolonged pain could lead to maladaptive responses and delay recovery.

A convenience sample of 25 women who had TRAM reconstruction breast surgery agreed to participate in the study; this report includes 16 participants who provided complete data. The self-administered “Baseline Assessment of Pain” and physical therapist-completed “Physical/Occupational Therapy Assessment” (POTA) instruments were used to collect data pre-operatively. An “Assessment of Recovery Post-TRAM Flap Breast Surgery” questionnaire was completed at 4 and 8 weeks. The POTA was completed again at 8 weeks. Information such as pain sites, pain intensity, and pain interference with seven areas of functioning were measured. Variables including previous back pain and type of surgery (free versus pedicled; immediate versus delayed) were measured. Descriptive statistics and t-tests were used for analysis.

Most women had higher than baseline pain and interference scores 4 weeks after surgery; scores at 8 weeks were almost back to baseline. Significant findings revealed that abdominal pain was higher for women with free TRAMs (p=0.027) and women with previous back pain reported more lower back pain (p=0.02). Opioids, followed by NSAIDs, were the most common intervention used to relieve pain. Patients were overwhelmingly satisfied with the information provided by the nurse. Nurses can positively influence patient outcomes by educating patients about typical recovery and useful interventions.

1902

DEVELOPMENT OF AN ONCOLOGY-SPECIFIC DISCHARGE FORM: SMOOTHING THE TRANSITION BETWEEN HOSPITAL AND HOME. Anita Grenier, RN, OCN®, Duke University Health System, Durham, NC.

Discharge needs of hospitalized medical oncology patients are often very complex. The nursing staff of our unit believed the generic discharge form provided to patients was inadequate in documenting patient needs and education provided. We felt that a form specific to the needs of oncology patients would improve the patient and caregiver’s ability to manage at home after hospitalization. Identifying key information for review aids nurses in providing consistent and continuing education upon discharge.

According to Press Ganey survey results, patient satisfaction scores on the discharge process and readiness for discharge had declined July 2005 – January 2006 from 95% to 78%. Believing prepared patients are more satisfied, it was decided to pursue a project to increase patient and caregiver knowledge of and compliance with post hospitalization care. This poster describes a specialized oncology discharge form created to ensure consistency in oncology nursing practice and evaluate the patient’s comprehension level at the time of discharge.

After reviewing a similar form used by a cardiology unit, the form was modified to address the needs of the oncology population. The content is comprised of unit educational resources including literature from the National Cancer Institute and clinical pharmacology materials, and includes standardized sections (“Education”, “Post-Chemotherapy Instructions” and “When to Call”) unique to individual patient needs. A draft of the discharge form received favorable reviews from unit staff as well as the hospital oncology clinical practice council (CPC).
The completed document was reviewed and endorsed by the hospital oncology CPC and unit medical director. Fellow staff members verbalized their concerns/suggestions and appropriate changes were made. Press Ganey scores showed a 5-8% increase after the form was implemented. Additionally, a telephone survey showed overwhelmingly positive responses, with 85% stating they felt very prepared to care for self at home after discharge.

By focusing on the individualized needs of oncology patients, we have created a consistent and satisfying approach to preparing patients and families for their return home after treatment. Other oncology nurses may use similar approaches to increase patient satisfaction by providing consistent and continuing education to patients upon hospital discharge.

1910 OUTCOMES OF ONCOLOGY NURSING CRITICAL CHECKS. Patricia Geddie, RN, MS, AOCNS, M.D. Anderson Cancer Center Orlando, Orlando, FL.

Nurses responsible for administering antineoplastic agents, managing treatment related side effects and emergencies are required to have specialized expertise and clinical competency to deliver care in a safe and appropriate manner. Over the years, the number and categories of agents and side effect profiles have increased. Nurses entering into the specialty of oncology nursing can be overwhelmed by the amount of clinical knowledge, competency and responsibility that they are expected to possess.

To reduce the number of oncology care related errors and improve nursing satisfaction by providing a concise checklist, “Critical Check” for the delivery of treatment and care management of oncology patients.

Critical checks were written and developed by Oncology Clinical Nurse Specialist to provide a check list for common procedures and care issues for oncology patients: Chemotherapy administration, spills and extravasations; Radiation therapy; Neutropenia, Anemia, Thrombocytopenia; and Oncologic Emergencies. The Critical Checks are provided and discussed in the oncology nursing courses and are also available for printing on the hospital’s intranet oncology nursing site. At the bottom of each critical check, a statement is included that the critical check is not all inclusive and refers the nurse to seek out more information is needed.

Verbal feedback from nurses have indicated that the critical checks are a useful tool to guide them in the care of the oncology/hematology patient. The hospital’s computer department was not able to track the number of nurses who accessed the critical checks on the intranet site. The oncology critical checks have been in existence since 2002. The critical checks have been re-evaluated and updated by a committee of oncology nursing staff, educators and advance practice nurses for content and relevance. In 2006, the hospital’s intranet dedicated a site for all nursing critical checks and other nursing disciplines have posted their critical checks there as well.

Critical checks for oncology nursing care are a way to provide standard and organized information about essential steps to provide and deliver care. A committee of advanced oncology practice nurses, staff nurses, educators and leadership must be committed to the ongoing evaluation and updating of the information.

1911 IMPLEMENTING A TOBACCO CESSTATION TRAINING PROGRAM FOR STAFF NURSES IN A COMMUNITY HOSPITAL SETTING. Pamela Mat- ten, RN, OCN®, St. Joseph Hospital of Orange, Orange, CA; Eunice Chung, PharmD, Western University, Pomona, CA; Dana Rutledge, RN, PhD, St. Joseph Hospital of Orange, Orange, CA; and Siu-Fun Wong, Western University, Pomona, CA.

Approximately 85% of lung cancer is attributed to cigarette smoking. Smokers offered advice from a nurse were 50% more likely to quit compared with smokers not offered such advice. Very few programs are available to empower nurses to provide tobacco cessation education to patients, and few nurses have been exposed to such content in their nursing education.

To describe a training program designed to educate bedside nurses in a community hospital with tools, knowledge and confidence necessary to provide patients with initial tobacco cessation interventions.

Rx for Change: Clinician-Assisted Tobacco Cessation Program, designed for pharmacy schools as a 7-8 hour curriculum, was modified into a 3 hour program, incorporating both lecture (behavioral counseling and pharmacotherapy) and role-playing. The training program, taught by an oncology nurse and a pharmacist, is tailored for inpatient nurses and emphasizes the first four of 5A’s (Ask, Advise, Assess, Assist, Arrange).

A pilot study from one training session with 20 nurses showed that nurse attendees had good to very good ratings of overall ability to help patients quit tobacco and that 49% found the information to be completely new. At 6 months follow-up, all respondents had counseled or referred at least one patient to a quit smoking program. The pilot indicated that knowledge gains were not maintained over 6 months.

Knowledge may be improved by adding some method of refresher information to help with knowledge retention. This course will be a mandatory inservice for all nurses at the community hospital; approximately three years will be required to educate all nurses. Nurses taking the course during 2007 will be invited to participate in a 1 year clinical trial evaluating the effect of a pretest on knowledge and attitudes. This presentation will describe the modified Rx for Change course.
Certification in oncology nursing is a specific way to ensure that nurses have the education, skill and knowledge to practice in a competent manner. Certification promotes professional development, opens doors to new career opportunities, and is valued by employers and patients. By highlighting the accomplishments of the department’s certified nurses, we can promote and mentor more nurses to pursue their certification.

OCN® certification is a professional achievement that nursing administration believes in and supports. Encouraging dialogue of the process between staff, posting deadlines for the test and the application process, time off for test taking, a hospital approved review course are ways to support staff in this endeavor. This project, though small in scale resulted in positively affecting the pursuit of oncology nursing certification. Since the project’s initiation, 3 additional nurses in our unit have successfully taken the test.

1914 EYE ON THE COMMUNITY: THE ROLE OF A CANCER TELEHEALTH NURSING SERVICE IN IMPROVING PATIENT AND FAMILY EDUCATION, ACCESS TO RESOURCES AND CLINICAL TRIAL ENROLLMENT. Rebecca Eggleston, RN, OCN®, University of Michigan Health System, Ann Arbor, MI; and Kimberly Zapor, RN, BSN, OCN®, Annette Schork, RN, BSN, OCN®, and Jean Campbell, RN, University of Michigan Cancer AnswerLine, Ann Arbor, MI.

Individuals who have been diagnosed with cancer as well as their family members and friends often seek a comprehensive resource for cancer information, and may need assistance in navigating the cancer care delivery system. Cancer AnswerLine, a cancer telenursing service, invites those affected by a cancer diagnosis to call toll free or submit an online request to communicate with an experienced oncology nurse.

The purpose of this poster presentation is to describe the impact of a singular cancer telenursing service on the patient, and health professional cancer community.

Established in 1995, Cancer AnswerLine has been marketed through print, radio, web and outdoor venues with the vision of increasing public awareness of a trusted and unique community service available for information seekers with questions about cancer prevention, diagnosis, treatment and access to clinical research. Those seeking information need not be patients at the University of Michigan. Program requirements include an established risk management, policy and procedures program, HIPAA compliant software for interaction documentation, and a secure online email database protecting sensitive patient health information. Nurses staffing Cancer Answerline have extensive oncology background, and are expected to be familiar with and comprehend current cancer related issues, pursue oncology continuing education credits, and oncology nursing certification. Assessment of service and value to the cancer community has been measured through direct mail customer satisfaction survey, spoken and written comment, established partnerships, benchmarking, and data captured through both telephone and software functionality.

Collection and interpretation of data evaluating the overall impact of Cancer AnswerLine on the community is in progress. Data representing caller demographics, reason for call, cancer site, number of cancer related service and clinical research referrals, total call/email volume, and patient/family direct mail survey results will be presented. Also provided will be substantiation of our collaborative relationships and benchmarking experiences within the health professional community.

A cancer telenursing service offers the cancer community a unique opportunity to receive information tailored to specific need from an experienced oncology nurse. It fulfills the public need for reliable cancer education and improves access to appropriate cancer care and support services. A successful cancer telexunursing program enhances communication between health professionals and the community and serves as an integral element of the cancer care delivery system.

1917 GENDER AND ETHNICITY: ARE THEY INFLUENCING CANCER PAIN? Eun-Ok Im, PhD, MPH, RN, FAAN, Wonshik Chee, PhD, Enrique Guerra, MSN, Yi Liu, MSN, and Hyun-Ju Lim, MSN, University of Texas at Austin, Austin, TX; and Hsiao-Min Tsai, PhD, Chang Gung Institute of Technology, Taipei, Taiwan.

Studies have reported inconsistent findings on gender and ethnic differences in cancer pain experience, and the inconsistency suggests further investigations on this topic for appropriate cancer pain assessment and adequate cancer pain management.

The purpose of the study was to explore gender and ethnic differences in pain experience of four ethnic groups of cancer patients. A feminist perspective theoretically guided the research process: gender and ethnicity were viewed as important factors that influenced cancer pain experience within the U.S. multicultural contexts.

This was a survey study among 480 multiethnic cancer patients. The instruments included questions on sociodemographic characteristics and health/illness status, three unidimensional cancer pain scales, two multidimensional cancer pain scales, the Memorial Symptom Assessment Scale, and the Functional Assessment of Cancer Therapy Scale. The data were analyzed using descriptive and inferential statistics.

Certain gender and ethnic differences in types of pain and symptoms that patients experienced were found. Also, the findings indicated statistically significant gender difference in functional status and ethnic differences in cancer pain and functional status. Women reported higher cancer pain, symptom, and functional scores than men. Compared with other ethnic groups, Asians reported the lowest cancer pain scores and pain relief scores; African Americans reported the lowest symptom scores; and Hispanics reported the highest functional status scores. The findings support gender and ethnic differences in cancer pain experience and suggest further in-depth national-scope studies on this topic.

1918 THE DECISION TO CREATE AN OFF-CAMPUS, HOSPITAL-BASED CHEMOTHERAPY SATELLITE. Marcia Gruber, RN, MSN, MS, Debra Smith, RN, OCN®, Nancy Bertran, BSN, OCN®, and Melissa Therrien, BS, Roswell Park Cancer Institute, Buffalo, NY.

As the demand for cancer care increases, hospitals must accommodate more patients who require chemotherapy. We experienced a 12% increase in patient visits, an increase in average treatment time, long wait times for treatment starts, and staff overtime costs that more than doubled. Eventually, all space and staffing options in our existing Infusion Center were exhausted. Before the growing volume compromised patient safety, administrators and clinicians alike believed it was time to look for expansion options.

To maintain our quality of care and improve service delivery, a team of clinicians, administrators, decision support and facility professionals carefully examined the advantages and challenges of creating a remote chemotherapy location.

The multidisciplinary team assessed the financial and operational impact, patient preferences, patient demographics and regulatory issues and recommended that an off-campus satellite office be created. A business plan and site selection criteria were developed. The nurse and physician team members determined which drugs could be safely administered off-campus. The proportion of research versus standard protocol appointments and the number of patients who required same-
day labs and concurrent transfusions were determined. Nurses and doctors were asked what issues they might have about an off-campus location. Patient Focus groups were held and the literature reviewed for evidence-based best practices. The Facilities representatives educated us on regulatory and building codes. This information led the Team to recommend that an off-site chemotherapy clinic be developed.

The business plan demonstrated that the project was viable and a suitable location was found that met all criteria. The Center opened to enthusiastic reviews in October 2006 and the Patient Satisfaction Survey results reveal highly satisfied patients.

The nurses were integral in describing the operational processes and patient safety considerations that had to be considered throughout the development of the business and operations plans. At each potential location, one or two nurses assessed accessibility, safety, throughput potential, and the work environment. Once a location was selected, the expertise of the oncology nurse became even more important in the design of the space and operational processes.

1928
AN EXPLORATION OF HOW CONTEXTUAL FACTORS INFLUENCE THE HISPANIC CANCER PATIENTS’ ATTITUDES TOWARD INTERNET CANCER SUPPORT GROUPS (ICSGS). Enrique Guevara, MSN, RN, Eun-Ok Im, PhD, RN, MPH, CNS, FAAN, and Wonshik Chee, PhD, University of Texas at Austin, Austin, TX.

Cancer accounts for 20% of deaths in Hispanics in the United States. Internet cancer support groups have been shown to be beneficial in helping patients with coping strategies. Hispanic participation in support groups is lacking.

The purpose is to explore how contextual factors influence the Hispanic cancer patients’ attitudes toward Internet cancer support groups through a secondary analysis of qualitative data from a larger study on cancer pain experience of patients in the United States.

The feminist perspective forms the theoretical underpinnings for this study.

A secondary analysis of the data collected from a larger study on cancer pain management was conducted. The study included both quantitative Internet survey and qualitative online forums. For this secondary analysis, online forum data among 15 Hispanic cancer patients were evaluated using a thematic analysis to explore common themes in their attitudes toward Internet cancer support groups. Also, the Internet survey data among the 15 participants were analyzed to describe their sociodemographic characteristics using descriptive statistics. The participants of the online forum were recruited among 105 Hispanic Internet survey participants of the larger study using a convenience sampling method, and the online forum data were collected using 10 discussion topics related to cancer pain experience. The Internet survey data analyzed in this study were collected using Internet survey questionnaire including sociodemographic questions and self-reported health/disease status.

Three themes related to Hispanic cancer patients’ attitudes toward ICSGs emerged from this preliminary on-going analysis. First, the cultural value of familism influenced cancer patients’ attitudes toward ICSGs. Due to familism, the family often took the place of the formal support group among Hispanic cancer patients. Hispanic cancer patients tended to have negative attitudes toward ICSGs because the Internet requires non-face-to-face interactions. Second, many of the participants of the study were not able to participate in ICSGs due to the language barriers. Lastly, Hispanic traditional gender roles had an impact on Hispanic women’s participation in ICSGs. The researcher should know the strengths and weaknesses of using the Internet method for support group structure among Hispanic cancer patients in order to further research with the Internet cancer support groups.

1929
THE LEADERSHIP ROLE OF THE CNS IN ONCOLOGY PROGRAM DEVELOPMENT. Karen Stephenson, RN, OCN®, MSN, MBA, Mercy Hospital, Miami, FL.

This poster describes the Clinical Nurse Specialist’s leadership role in building an oncology service line through the advancement of nursing practice, program improvement initiatives, and staff education. This advanced practice nurse leads efforts to develop staff and programs to provide evidence-based outcome-guided practice.

We designed our cancer program “pyramid” on a strong foundation – the mission and vision of the organization; financial viability; innovative, cutting edge cancer technologies; and nursing and physician excellence. Our “pyramid” includes basic and critical building blocks: evidence based practice, patient care services across the continuum, collaboration with community liaisons, and health and wellness programs. Some challenges to growing this service line include providing caring practices in a multicultural hospital, promoting our reputation and long standing community relationships, and identifying, defining, and promoting cancer services to our customers.

During our program expansion, the CNS created an environment through mentoring and system change that empowered nurses to serve as patient advocates.

Through the leadership of the CNS, in collaboration with members of the healthcare team, our organization is committed to providing and coordinating quality cancer care for our community.

1932
DEVELOPMENT OF AN ADVANCED PRACTICE ONCOLOGY NURSE FELLOWSHIP. Joyce Dains, DrPH, JD, RN-BC, FNP, NAP, Carol Dallred, RN, MSN, WHCNP, Joyce Neumann, RN, MS, CNS, OCN®, and Barbara Summers, PhD, RN, U.T. M.D. Anderson Cancer Center, Houston, TX.

Preparation for advanced practice nursing in oncology was challenged when the state Board of Nurse Examiners ceased to recognize oncology nursing as an advanced practice specialty. We developed a year-long post-graduate fellowship in oncology nursing to provide advanced practice nurses the opportunity to develop expertise in cancer care.

The purpose of the fellowship is to promote advanced practice preparation in oncology nursing and to enhance expertise in cancer care at the advanced practice level. Fellows gain in-depth knowledge and experience in evidence-based clinical oncology practice through a structured curriculum, and grow into increasingly independent practice under the guidance of APN preceptors.

Chief elements of program development included gaining support of stake holders, partnering with a school of nursing, establishing a multidisciplinary curriculum, identifying appropriate outcomes and evaluation criteria, marketing the program, and implementing a competitive selection process. Unique to this program, fellows are hired as employee-trainees in full salaried positions. All fellows complete a core curriculum lasting 4-6 months that includes mandatory rotations and classes that cover the full spectrum of cancer care, both inpatient and outpatient, and 9 hours of post graduate credit at the school of nursing. Each fellow selects a specialty focus for the remainder of the fellowship for concentrated clinical practice and experiences.

We were successful in bringing the fellowship from inception to implementation in less than a year. The competitive process ensured selection of fellows with the skills, motivation, and flexibility essential to their success. The employee-trainee status enables fellows to participate in all aspects of patient care, congruent with roles and function of APNs at the institution, and to enjoy full employee benefits. Fellows are expected to complete an evidence-based practice
project and disseminate project results. Fellows are expected to pursue AOCNP/AOCNS certification. Formal program and fellow evaluation are ongoing. The fellows agree that the experience and opportunities are unparalleled, and the institutional response has been enthusiastic.

The length, depth and scope of the fellowship make it unique. The fellowship fills a special need in the development of APNs with expertise in cancer care and contributes to workforce enhancement. Program expansion is planned.

1936
INTRAPERITONEAL CHEMOTHERAPY AND INTRAPERITONEAL CATHETER CARE: A NURSING MANAGEMENT PERSPECTIVE. Evelyn Marinas, RN, BSN, OCN®, and Stella Dike, RN, University of Texas M.D. Anderson Cancer Center, Houston, TX.

A clinical trial conducted by the Gynecologic Oncology Group (GOG), revealed a significant increase in the number of surviving patients who received chemotherapy through Intraperitoneal (IP) Chemotherapy when compared to outcomes of administration via the traditional intravenous route. Intraperitoneal (IP) Chemotherapy is a method to directly infuse chemotherapy into the abdominal cavity where most ovarian cancer cells circulate and spread. The benefit appears to be approximately a 12-month improvement in median overall survival (range 0-16months). Chemotherapy agents, such as Cisplatin and Paclitaxel can be administered via an external intraperitoneal tunneled catheter (Tencloff) or a subcutaneously implanted intraperitoneal port. An increase in number of patients with IP catheters on a gynecology oncology unit created a need for an evidence-based policy and procedure for IP catheter care.

The purpose of this project was to develop a standardized, evidence-based nursing procedure/policy to guide clinical nurses’ practice with catheter care and maintenance.

The Nursing Practice Congress (NPC) governance structure in our comprehensive cancer center supports professional nurses to influence practice outcomes and develop evidence-based nursing practice standards. Professional Action Coordinating Teams (PACTs) are created to discuss and develop resolutions to issues identified at the primary level of care. The need for a standardized nursing procedure/policy for patients receiving IP chemotherapy was presented to the NPC and a PACT was formed. Interdisciplinary IP PACT team members reviewed available literature and guidelines to determine best practices for IP catheter care.

The completed IP chemotherapy policy/procedure has been presented to the NPC for approval and will be communicated to the nursing community as a practice guide.

The PACT identified that patients’ IP chemotherapy had been discontinued in other settings due to complications such as catheter blockage, catheter leak and catheter infections. Based on the review of literature, the IP PACT drafted an Intraperitoneal Medication Administration Policy/Procedure. Recommendations included: (1) Assess the catheter or port for patency by flushing with normal saline to ensure there is no resistance or leakage, (2) Recheck position of the hueber needle and re-access if leakage occurs, (3) Use aseptic technique for catheter management to prevent catheter infection.

1938
EFFECTS OF AN EDUCATIONAL INTERVENTION ON BREAST CANCER SCREENING AND EARLY DETECTION IN VIETNAMESE AMERICAN WOMEN. Tuong-Vi Ho, RN, PhD, M.D. Anderson Cancer Center, Houston, TX.

Cancer is the leading cause of death for the Asian American population. Breast cancer is the most common cancer in Vietnamese women, and they are often diagnosed with breast cancer at a younger age. About 50% of the women are younger than 50 years of age at time of diagnosis with advanced stages, which makes optimal treatment difficult. Education of the importance of early screening and detection could possibly improve and save lives in this population.

The purpose of this study was to evaluate the effects of a culturally sensitive educational intervention on breast cancer knowledge, breast cancer health beliefs, breast-self-exam (BSE) knowledge, BSE practices and its confidence levels, mammogram activities, and clinical breast exam in a group of Vietnamese American women living in the Houston vicinity.

The Health Belief Model (HBM) and components of Leininger’s transcultural nursing theory were used as the theoretical framework.

Methods and Analysis: This was an experimental two-group pre-test/post-test study. Using chi-square and one-way ANOVA statistical analysis, demographic data and the effects of the intervention were evaluated in a sample of 94 Vietnamese American women who were randomized to control and experimental groups. Data was obtained at before and 3 months after the educational intervention.

Two components of the HBM (perceived seriousness, p < 0.01, and perceived benefit p < 0.01) were found to be significantly different between the 2 groups. There were significant increases in the level of BSE knowledge (p = 0.005), level of confidence in performing BSE (p = 0.009), a higher self-report of BSE practice (p = 0.007), and an increase in breast cancer knowledge within the intervention group (p = 0.000). No significant changes were found in self-reported mammogram activities and clinical breast exam. However, about 80% of the participants reported that they had made appointments for mammograms.

These findings indicate that a culturally sensitive educational intervention given by an oncology nurse had a positive impact on the health beliefs and practices related to breast cancer screening and early detection in this population. This intervention can be used as a model for other ethnic-specific oncology educational programs.

1939
A SHARED GOVERNANCE MODEL—THE NURSING PRACTICE CONGRESS. Deborah Oline, BSN, RN, OCNS, and Patricia Johnston, RN, MHA, OCNS, University of Texas M.D. Anderson Cancer Center, Houston, TX.

Implemented in February 2006, the Nursing Practice Congress (NPC) has empowered the clinical nurses at a large comprehensive cancer institute to have control over their practice.

Based on a shared governance congressional model, the 34 peer-elected delegates have been presented with over 45 clinical nursing issues. Each issue is evaluated by the NPC and if there is no existing committee in place to resolve the issue, a Professional Action Coordinating Team (PACT) is formed. Each PACT is a short term, multidisciplinary committee, charged with resolving the issue within a timeline formulated by the group. In addition to a meeting structure designed by the PACT to encourage attendance, the PACTs have the use of an electronic bulletin board to increase the participation of off-shift staff and those who work at off-site locations. The conclusions are then presented before the NPC and are directed to the appropriate area for implementation.

A case study workflow of a clinical issue will be included. From the identification of the issue to the conclusion, the structure for resolving nursing practice issues will be detailed.

An additional charge of the NPC has been to increase nurse’s awareness of current nursing practice issues. Working with our information systems department, a unique database was developed enabling nurses to submit new issues, track current issues, and review...
resolved issues. Monthly news letters and updates are provided by the peer-elected delegates to their constituency.

Staff participation has been tracked and demonstrates an increase in the participation from all levels of nursing within our institution. Additionally, a quantitative study is in development to measure the effectiveness of the shared governance structure.

The implementation of a new shared governance structure takes time but, with the right tools in place and through management support, our institution is leading the way in empowering the clinical nurses. To date, 22 PACt have been formed and have completed or are working towards issue resolution.

1940
FACTORS AFFECTING PROSTATE CANCER SCREENING DECISION-MAKING AMONG BLACKS. Randy Jones, PhD, RN, Richard Steeves, PhD, RN, FNP, FAAN, and Ishan Williams, PhD, University of Virginia, Charlottesville, VA.

Black men are 2-3 times more likely to be diagnosed with prostate cancer than Whites. Cultural beliefs play a major role in screening behaviors. These beliefs may assist in the decision whether or not to be screened for prostate cancer. To provide culturally sensitive care, healthcare professionals must be aware of these beliefs.

The purpose of this study is to understand prostate cancer screening decision-making among rural Blacks. The study’s goal is to conduct an in-depth analysis of beliefs on prostate cancer screening among rural Blacks. How these beliefs and attitudes may or may not have influenced their health decision-making process were explored also.

This study used a qualitative design. The data that is being analyzed utilizes the hermeneutic/phenomenological approach to explore the “lived experiences” of the participants. The “lived experiences” related to the participants’ views on prostate cancer screening.

The sample includes age 40 and older Black men who never been diagnosed with prostate cancer, but may or may not have been screened. Participant recruitment takes place at rural community centers (i.e. barbershops and churches). Semi-structured interviews explored health status, demographics, prostate cancer screening knowledge, healthcare providers and family interactions, and religious beliefs. Data collection will be terminated upon moment of data saturation. Data will be analyzed using qualitative and descriptive methods.

The study is still underway. Current findings include rural Black men not being aware of the increase risks of being diagnosed with prostate cancer, and the importance of family in deciding to have a prostate screening performed. These men reported it was much later in life until they heard about prostate cancer. More findings will emerge.

The results will give healthcare providers clues in how to sustain and improve care they deliver to this vulnerable population. The findings will aid in the development of a culturally-sensitive decision aid. The study has great promise to improve interactions between healthcare providers and patients and promote unity among the community and healthcare systems.

1941
EMPowering THE ONCOLOGY NURSE AND CAREING FOR THE FAMILY CAREGIVER: MEETING CRITICAL NEEDS BY ESTABLISHMENT OF A FORMAL PROGRAM OF BEREAVEMENT SUPPORT ON THE IN-PATIENT ONCOLOGY WARDS. Virginia LeBaron, RN, ACNP, AOCN®, University of Arizona College of Nursing, Tucson, AZ; and Sara Moore, MA, LPC, Georgetown University Hospital, Lombardi Cancer Center, Washington, DC.

Family caregivers of oncology patients who die in the hospital may be at particular risk for difficult grief and isolation. Commonly they care for patients with recalcitrant disease, who have not elected hospice for a variety of reasons. Consequently, these family caregivers are not automatically enrolled in hospice programs of bereavement follow-up. Oncology nurses caring for patients at end-of-life often express a sense of helplessness, and are in a unique position to promote family caregiver bereavement support.

1) To conduct a pilot project of a formal program of bereavement support targeting caregivers whose loved ones die on the oncology wards.

2) To empower the oncology nurse by providing an opportunity to participate in family caregiver bereavement support.

3) To improve family caregiver satisfaction, because prior to this pilot project no such service existed in the hospital.

1) Developed booklet of educational materials about the grieving process and community/hospital resources.

2) Identify primary caregivers of oncology patients who die on the oncology wards.

3) Oncology nurse provides booklet to primary family caregiver at time of death and completes caregiver contact information card.

4) Family caregiver information is entered into a database for bereavement follow-up.

5) Palliative care nurse practitioner, chaplain, or oncology nurse contact family caregiver: phone call at one week; letter and phone call at 1 month; letter at 6 months; and card at 1 year.

6) Invite all family caregivers to participate in a 6 week hospital-based grief support group led by cancer center chaplains.

6 month and 1 year time points include a brief evaluation survey for the caregiver to return to the project coordinators. Data collection is on-going, but initial survey results suggest this is a helpful intervention for family caregivers. It is hoped that results will serve as a benchmark for implementation of similar bereavement programs throughout the hospital.

Supporting family caregivers is an essential role of oncology nursing. Initiation of a simple, effective bereavement program targeting caregivers whose loved ones die in the hospital provides critical assistance to vulnerable caregivers, and enables the oncology nurse to proactively engage in caregiver support at the end-of-life.

1944
STEREOTACTIC RADIOTHERAPY PLUS AMIFOSTINE IN PATIENTS WITH LOW-GRADE PROSTATE CANCER. Elaine Montchal, RN, Alan J. Katz, MD, and Matthew Witten, PhD, Winthrop Hospital, Mineola, NY.

Radiation therapy (RT) for localized prostate cancer is associated with bowel toxicities that adversely affect long-term quality of life (QOL). Robotic stereotactic radiotherapy (Cyberknife®) uses x-ray imaging to enable real-time corrections based on organ position. Although this technique reduces radiation exposure of normal tissues, protecting the anterior rectal wall remains difficult. Amifostine is a radioprotectant that has been shown to reduce toxicity to rectal tissues when administered to patients receiving RT for localized prostate cancer.

We investigated the efficacy of intrarectal amifostine administered before RT for reduction of symptoms of bowel/rectal toxicity in patients receiving Cyberknife as primary or boost RT for localized prostate cancer.

Amifostine (1500 mg/40 cc normal saline) was administered 20 minutes before each session. In patients receiving Cyberknife as primary RT, 35 Gy (7 Gy x 5 fractions within 7 days) was administered. Patients receiving boost RT had previously undergone external beam radiation (45 Gy; 1.8 Gy x 25 fractions), then received RT (18 Gy; 6 Gy x 3 fractions over consecutive days).

Patients completed the bowel subscale of the Expanded Prostate Cancer Index Composite (EPIC) questionnaire 1 to 3 weeks before...
treatment initiation, at treatment completion, and 3 months posttreatment. Maximum possible EPIC score is 100; higher scores indicate fewer symptoms and better QOL. Of 41 patients completing RT, 3-month follow-up data are available for 4 patients in the primary RT group (n=22; mean age, 68.1 y) and 3 in the boost RT group (n=19; mean age, 69.4 y). All primary patients had a baseline EPIC score of 100; mean baseline score for the boost group was 57 (range, 41–73.2). Posttreatment EPIC scores showed reduced bowel function for primary patients (mean, 62; range 19.6–87.5), and slight improvement for the boost patients (mean, 64.6; range, 42.8–82.1). At 3-month follow-up, mean scores increased in both groups (primary: 87.5, range 80.4–92.8; boost: 96.4, range 94.6–98.2), indicating recovery of bowel function to near-normal levels.

Although intrarectal administration of amifostine is investigational, these results support further study of Cyberknife with amifostine pretreatment in the management of localized prostate cancer.

1947

WEAVING GOLD: TRANSITIONING NURSING PRACTICE FROM A MEDICAL MODEL TO A NURSING MODEL. Nancy Thompson, RN, MS, AOCN®, Swedish Cancer Institute, Seattle, WA; and Marilyn Hammer, DC, RN, University of Washington School of Nursing, Seattle, WA.

As more health care institutions and oncology departments seek magnet status as a step in optimizing evidence-based patient care, increasing numbers of nursing departments are transitioning their nursing practice from a medically driven model based primarily on physiologic data to a nursing driven model seeking a more holistic approach that better reflects actual nursing practice. For many nurses, this transition represents a major change in practice, leaving them with a feeling of disorientation, confusion and frustration.

Using the transitions model by William Bridges and Associates (1998) helps nurses to adjust to the change, normalize their feelings and assure a positive outcome. The process of change can be viewed as a three-step progression which includes 1) ending a current structure, 2) transitioning to the new model, and 3) entering the new beginning of the remodelled system. It is within the transition phase, or neutral zone, in which problems can arise which may negatively affect productivity, morale, and outcomes.

To overcome these barriers, this hospital based oncology clinic provided unit based education on Bridges transition theory including exercises to identify losses and learn four possible responses: replace, redefine, reinvent or relinquish. Staff nurses were encouraged to be part of the model change process to gain the benefit of the creativity associated with the neutral zone. Part of each staff meeting was devoted to talking through the feelings associated with the process.

The full integration of the nursing model is not yet completed, but education of Bridges transition model has allowed nurses to normalize their feelings, to feel a part of the process, and to facilitate its application for a positive outcome and improved patient care. The Bridges Model of transitions could be applied to many different changes that occur in Oncology care such as changes in equipment, administrative structures, safe handling practices, and/or patient evaluation and follow-up.

Although transitioning from a medical model to a nursing model can be disconcerting in an oncology setting, involving nursing personnel in the process can be a golden opportunity in weaving holistic based nursing practice into evidence-based patient care.

1949

PATIENT EDUCATION CHECKLIST TOOL: IMPLEMENTING A METHOD TO PROVIDE CONSISTENT PATIENT EDUCATION. Victoria Vu, RN, UCSD/Moores Cancer Center, La Jolla, CA; and RNs from the Moores UCSD Cancer Center Clinic/Inf, UCSD, La Jolla, CA.

The Moores UCSD (University of California San Diego) Cancer Center opened in 2005, combining four different infusion areas at UCSD into one. The Center’s combined staff of more than 50 clinic and Infusion Center RNs care for patients as they navigate between clinic visits and Infusion Center treatment sessions. These RNs brought into practice many different perspectives about patient education content and who should provide that content. Therefore, patient education practices needed to be inclusive, consolidated and streamlined to improve communication among Cancer Center nurses and better focus education content for patients.

To create a prototype patient education checklist tool, listing topics to include in the patient’s first clinic visit and during Infusion Center treatment appointments. The tool guides all RNs caring for the patient about education content reviewed or needing re-review. The tool also serves as a documentation of patient education covered, as well as a means for quality assurance. By using the tool, RNs can, in part, ease the patient’s level of anxiety about diagnosis, symptom management and treatment by providing organized and consistent education.

A joint RN task force initially established topics to be included on the checklist tool. Topics included orientation to the Clinic and Infusion Center, drug information, symptom management, parking policies, social services and contact information. From the task force, both Clinic and Infusion Center RNs were surveyed about which topics should be listed. Results confirmed which topics to include and whether Clinic or Infusion Center RNs should initially cover the material.

Of the 30 surveys distributed with 50% return: prior to first day of infusion, 60% in favor of Case Manager (CM) giving patient specific drug information; 80% in favor of Infusion Nurse giving generic symptom management information; 100% agreed that CM should handle MD follow ups.

Further evaluation of the tool showed that 1) RNs used the tool; 2) Patients received information consistently.

1950

MEANING AND EXPERIENCES OF DIGNITY TO URBAN POOR WITH ADVANCED CANCER. Anne Hughes, RN, MN, AOCN®, FAAN, Laguna Honda Hospital and Rehabilitation Center/SFDPH, San Francisco, CA; and Maria Gudmundsdottir, RN, PhD, and Betty Davies, RN, PhD, FAAN, University of California San Francisco, San Francisco, CA.

Vulnerable populations, such as the urban poor, are disproportionately affected by cancer. Poor persons face barriers accessing quality cancer care and when receiving care, may experience sensitivity to their plight. Dignity is a ubiquitous concept in bioethics and theology, and is often mentioned in the context of providing care to older adults, the disabled, and to those who are dying. The everyday experiences of the urban poor living with advanced cancer are largely invisible in the literature and the psychosocial and existential consequences of their illness and treatment rarely described.

The purpose of this study is to understand the meaning of dignity to the urban poor and to describe their experiences living with advanced cancer. Interpretive phenomenology is the qualitative approach used to uncover the meanings of dignity and to describe the experiences of the urban poor with advanced cancer through their own stories.

Patients were recruited from providers caring for the urban poor. Data were collected from in-depth interviews which were audi-taped and transcribed. Patients were interviewed 1-3 times. Interview transcripts and field notes are the data sources for this analysis, which
is part of a larger project. Researchers identified and analyzed themes both within and across cases.

Fourteen patients with stage III or IV solid tumors (lung, breast, colorectal, etc.) participated in the study. The sample of 6 men and 8 women, ranging in age from 38-69 years, half of the sample (50%) were persons of color (5 African Americans and 2 Hispanic/Latinos). A central finding for this urban sample coping with serious illness was that most persons, even those only weeks from death, focused on living not on dying. Moreover, participants’ descriptions of their experiences focused not on dignity but rather on indignity. Their indignity stories, such as being talked down to or not listened to and the embarrassment of fecal or urinary incontinence, were described in vivid detail. This research confirms the importance of person-centered communication that recognizes the humanity of the patient regardless of their psychosocial circumstances and the need to expediently meet hygiene and toileting needs to decrease threats to their dignity.

1952
AN INNOVATIVE APPROACH FOR DECREASING THE INCIDENCE OF FALLS IN ONCOLOGY PATIENTS: THE PATIENT/FAMILY FALLS PREVENTION VIDEO. Escel Stanghellini, MSN, BSN, RN, Brigham and Womens Hospital, Boston, MA; Martie Carnie, AD, Volunteer Patient and Family Advisory Council, Dana-Farber/Brigham and Womens Cancer Center, Boston, MA; Minalini Gadkari, MPHSA, Dana-Farber Cancer Institute, Boston, MA; and Lea Tatarouns, RN, BSN, Susan McDonald, RN, OCN®, and Joan Deary, RN, BSN, Brigham and Womens Hospital, Boston, MA.

The risk for patient falls is a constant concern for oncology nurses, particularly in in-patient units. An increase in patient falls with injury on the inpatient units of our NCI-designated Cancer Center revealed that patients sometimes neglected to ask for help from the nursing staff to get into and out of bed, even though appropriate fall prevention interventions may have been in place. Not wanting to relinquish their usual level of independence and not realizing how much their therapies, procedures, surgeries, or illness could weaken them, many patients experienced a fall during their hospitalization because they tried to get out of bed or to the bathroom without assistance. To address this problem, our nursing staff in collaboration with patients developed a falls-prevention video.

A video, which featured re-enactment of patient falls and stories shared by patients, with lessons learned, was developed to use as a teaching tool with patients at risk for fall and their families. Concepts from adult learning theory guided this project.

A patient from our institution’s Patient Family Advisory Council narrated the video, which provided information about fall risk factors, re-enactments of three patient-fall cases, an interview with a patient who recently fell and a summary of reasons why patients are at risk, stressing the important role each patient has in preventing a fall. The video, available in English with closed captioning or Spanish subtitles, will be shown to all patients who are at risk for fall.

Patient feedback about the video has been positive; ongoing monitoring of fall rates/trends will provide data to make pre- and post intervention comparisons.

Innovative patient education strategies can improve patient safety and risk management. Staff nurses, nurse educators and nurse managers can apply our method to develop their own unique patient education tools.

1953
AN EVIDENCE-BASED APPROACH TO REDUCING NIGHTTIME NOISE ON ONCOLOGY INPATIENT UNITS. Escel Stanghellini, MSN, BSN, RN, Brigham and Womens Hospital, Boston, MA; Martie Carnie, AS, Patient and Family Advisory Council, Dana-Farber/Brigham and Womens Cancer Center, Boston, MA; Minalini Gadkari, MPHSA, Dana-Farber Cancer Institute, Boston, MA; and Nancy Mahan, RN, OCN®, Catherine Benedict, RN, BSN, and Christine Leonard, RN, BSN, Brigham and Womens Hospital, Boston, MA.

Nighttime noise (any sound that patients identify as bothersome or that disturbs their sleep or other activities) is a frequent patient complaint on acute care oncology units despite recommendations on the acceptable noise levels from the United States Environmental Protection Agency. An evidence-based practice (EBP) project was designed by nurses to address this problem on the in-patient units of an NCI-designated Cancer Center located in the North East.

The purpose of this project was to develop evidence-based strategies to reduce the nighttime noise levels on the inpatient oncology units. A Plan-Do-Study-Act (PDSA) cycle was used to analyze patient complaints about noise, develop noise reduction guidelines, and pilot their use on two adult Hematology/Oncology/Bone Marrow Transplant patient units.

A masters-prepared oncology nurse led the Inpatient Quality Improvement Team that carried out this EBP project; the team included staff nurses, a health and safety technologist, a quality improvement specialist, and a representative of patients and their families. Evidence were used to develop the guidelines included: benchmarking data, expert opinion, patient/family input, published research and other literature. A learning packet containing the guideline recommendations for noise reduction was distributed to the nursing staff via email and hard copies. In-services were provided to facilitate discussion. Posters and small flyers with reminders to limit noise were posted in the patient care areas.

Initial patient satisfaction on noise level after guideline implementation, measured, by the Press-Ganey survey instrument, showed an increase of 1.5% on one pilot unit but a 3% decrease in satisfaction on the other pilot unit. This data will continue to be collected and analyzed to evaluate the effectiveness of on going noise reduction efforts. The next step is to track the process measures to gauge compliance and usage of noise reduction guidelines.

Nurse clinicians and managers can use the information from this project in two ways: to implement these guidelines for nighttime noise reduction on their patient care unit(s) and to use this model for developing and implementing evidence-based guidelines that address other issues of concern to oncology nurses and their patients.

1954
EVIDENCE-BASED PRACTICE: “BLOOD PRODUCT ADMINISTRATION PUMP VERSUS GRAVITY.” Rochelle Contreras, RN, BSN, Cynthia Murphy, RN, BC, MS, and Mihaela Fetea, RN, OCN®, UT M.D. Anderson Cancer Center, Houston, TX.

The nursing resource pool (NRP) at a large comprehensive cancer center in the southwestern United States provides supplemental staffing to all inpatient nursing units. While providing staffing coverage, NRP nurses identified a variation in nursing practice with the administration of packed red blood cells (PRBCs). Over 37,000 units of PRBC’s are administered annually by nurses at the cancer center. Nurses’ practices for blood transfusion included administration by volumetric pump or by gravity.

The evidence-based practice (EBP) process was utilized to identify supporting literature for transfusion of PRBCs via volumetric pump as a standard practice at our cancer center.

In 2005, the organization implemented an evidence based practice program for clinical nurses to build nursing care practice on evidence rather than traditional standards. Clinical nurses were challenged to
learn techniques to search the literature, develop evidence tables, and implement practices supported by evidence-based research. The EBP process was utilized by the NRP team to examine the practice of packed red blood cell administration.

A PICO question was developed and literature review was conducted to determine if a recommendation for blood administration via volumetric pumps was supported by evidence. The first step was to determine if the red blood cells administered by pump, degraded during transfusion thereby affecting the patient therapeutic benefit. The manufacturer of the pump utilized at the cancer center was contacted regarding independent research that evaluated the risk of hemolysis and its significance with blood product administration.

The literature review revealed very little research supporting blood administration via a volumetric pump. Several references and nursing standards supported use of transfusion by pump, as long as, the pump manufacturer provided supporting evidence. Administration of blood products at a consistent rate was noted to prevent fluid overload and decrease risk of contamination. The team identified these factors as patient safety benefits.

The team will share the EBP journey for development of a practice recommendation. Based on the literature review, a recommendation was made to use a volumetric pump for PRBC transfusion.

1955
NEUTROPENIC DIET WITH LEUKEMIA PATIENTS. Alison Gardner, PhD, RN, M.D. Anderson Cancer Center, Houston, TX.

Neutropenia continues to be a significant problem for leukemia patients receiving chemotherapy. Various precautions have been instituted once patients become neutropenic. One of these, the neutropenic diet has been very controversial with varying practices among institutions and physicians. The practice started about 30 years ago when Pseudomonas was cultured from tomatoes. There have been various surveys regarding hospitals that use the neutropenic diet, but there has not been a randomized clinical trial to evaluate infection rates based on the neutropenic diet versus a diet including fresh fruits and vegetables.

The purpose of this study was to evaluate the infection and death rate of leukemia patients who eat a regular diet including raw fruits and vegetables compared with patients who eat a neutropenic diet which excludes raw fruits and vegetables.

The inclusion criteria includes newly diagnosed patients with acute myelogenous leukemia or myelodysplastic syndrome who are receiving frontline chemotherapy in the protective environment (PE). Exclusion criteria includes patients with a pneumonia or bacteremia on admission and those who refuse to eat raw fruits or vegetables. Patients were randomized according to an ERM (early risk mortality) score and were asked to keep a diary of their food intake. Questionnaires were done weekly to document fever, bacteremia or pneumonia. The study will be conducted from the time the patient initiates chemotherapy until they are discharged from the hospital or their absolute neutrophil count is over 1000.

The statistical design is a posterior and predictive probability computation to evaluate for interim monitoring. A Chi-Square was used to compare the infection and death rates between the two treatment arms. Presently 150 patients have been enrolled on the study. The infection rate in the raw fruit and vegetable group is 29% with 16 bacteremia and 2 pneumonia. The infection rate in the neutropenic diet group is 32% with 9 bacteremia and 12 pneumonia. There was one death in the neutropenic group.

Infection rates in both groups are similar raising the question of the necessity of the neutropenic diet.

1957
KEEPING THE LID ON PRESSURE: A QI PROJECT MONITORING THE MANAGEMENT OF HYPERTENSION DURING INFUSION OF HEMATOPOIETIC STEM CELLS FROM MATCHED UNRELATED DONORS. Roxann Blackburn, RN, OCN®, Joyce Neumann, RN, BSN, MS, APN, OCN®, and JoAnn Mick, RN, MSN, MBA, PhD, UTMDACC, Houston, TX; Geri Wood, RN, PhD, University of Texas, Houston, TX; and Joy Mok, RN, BSN, MS, APN, OCN®, UTMDACC, Houston, TX.

Patients undergoing hematopoietic stem cell transplants from matched unrelated donors (MUD) at a university-based bone marrow transplant unit were noted to have a higher incidence of acute hypertension during infusion of cells. Acute hypertension in this population can be life threatening due to profound thrombocytopenia and the subsequent risk of central nervous system bleed. Cell products from MUDs are collected the morning of transplant, transported to the patient and infused later the same day, so many of these infusions occur in the evening when there is less clinical support in the institution.

To provide guidance to the nurses for the management of infusion related hypertension a multidisciplinary group developed a physician order set that included “what if” orders for hypertension occurring during MUD infusions.

Medical records of patients receiving MUD cell infusions are being reviewed to determine how often the order set is used and to evaluate if BP is maintained within normal range when the order set is used.

Data collection is ongoing. Preliminary information collected on 85 patient charts suggests that implementation of interventions in the order set is helping to manage hypertension. Additional information will be accumulated and presented.

Acute hypertension can be a life-threatening event in patients receiving hematopoietic stem cell infusions. When nurses have standing orders to treat infusion related hypertension blood pressure can be maintained within a normal range.

1969
PATIENT TREATMENT ORIENTATION 101: EMPOWERING PATIENTS TO BECOME ACTIVE PARTICIPANTS OF THEIR HEALTHCARE TEAM. Leah Scaramuzzo, MSN, RN, C, AOCN®, Cancer Institute of New Jersey, New Brunswick, NJ.

Several mandated standards and guidelines indicate nurses have a legal, moral, and ethical responsibility for patient education. Oncology nurses at an outpatient NCI-designated Comprehensive Cancer Center provided one-on-one teaching during patients’ initial cancer treatments and found they were often anxious and overwhelmed by the amount and complexity of information; this decreased their ability to comprehend and retain information essential to self-care management. In addition, nurses were challenged to integrate in-depth teaching into their busy schedules and numerous patients underutilized support resources.

The purpose in initiating a treatment orientation program was to provide patients with a general understanding of cancer treatments and specific information about the Center and available resources using principles of adult teaching-learning. Evidence demonstrates that knowledge decreases distress, and therefore facilitates coping and adaptation to a cancer diagnosis thus enabling patients to become active participants in their healthcare, a goal of JCAHO’s “Speak Up” program. Effective patient education can increase compliance with treatment regimens, facilitate recognition of adverse events, improve clinical outcomes, and decrease healthcare expenses.

Program content was developed through literature reviews, industry benchmarking, sessions with interdisciplinary experts, and focus...
groups of patients undergoing treatment. Patients/families are now offered a 90-minute class where they learn about the Center, roles of their healthcare team, evidence-based self-care strategies, and support resources. The program concludes with a tour of the treatment facility, Q&A, and networking opportunities with others newly facing treatment.

219 written evaluations revealed participants felt less anxious, more informed, and better prepared. Staff feedback has been overwhelmingly positive, as the program has improved effectiveness and efficiency of the education process. Reduced variability in teaching content and increased compliance with documentation of patient education has been found since the program’s inception. Nursing feedback; patients now ask more questions, utilize supportive services, and participate in healthcare decisions.

Oncology nurses are in a key position to develop and implement this “best-education” didactic template as the nursing shortage reduces time available for patient education. The orientation program paradigm is currently being adapted for new patients receiving care in the surgical and radiation oncology sections and various multimedia alternatives are being explored.

1970
CONSUMER KNOWLEDGE: THE ROLE OF THE ONCOLOGY ADVANCED PRACTICE NURSE. Tracy Krimmel, RN, MSN, AOCN®, APN-C, Beth Knox, RN, APN-C, AOCN®, and Kristen Fessele, MSN, RN, APN-C, AOCN®, Cancer Institute of New Jersey, New Brunswick, NJ.

The Oncology Nursing Society identified important issues facing advanced practices nurses (APNs) in April of 2001. One issue that was addressed was the role ambiguity of the APN. Moreover, a recent poll suggested that only 25% of consumers who asked knew what an advanced practice nurse was. This role ambiguity is a cause of concern for advanced practices nurses.

The purpose of this study is to utilize a pre- and post-test instrument to evaluate consumer knowledge regarding the role of the Advanced Practice Nurse (APN) in an oncology practice before and after the distribution of an informational brochure. The specific research questions that will be investigated are 1) What is the baseline level of knowledge of CINJ patients regarding advanced practice nurses? 2) Does the number of visits with an APN at CINJ increase the patient’s knowledge of the role of the oncology APN at CINJ? 3) Does an educational instruction, increase patient’s knowledge of the oncology APN’s independent of the number of visits with an oncology APN at CINJ.

The conceptual framework that has been chosen for this study is from the work of Malcolm S. Knowles’ adult learning theory andragogy.

This is a quasi-experimental, descriptive study using a pre-test, post-test design strategy to investigate the level of consumer knowledge before and after educational intervention. Two groups of patients will be invited to participate in the study. For each group, those returning the consent form will be randomly assigned to either the intervention or control group until the required sample size is reached. The intervention group will receive CINJ’s APN brochure and the control group will not. The patients will be asked to answer a set of questions at two time points: pre and post study. These 10 subquestions will be summarized by the total number of questions answered correctly for increased statistical power, easier interpretation and to avoid the multiple testing issue. The descriptive statistics for each of the 10 sub-questions will be provided, however. The second part is patients’ knowledge of the required education for APN.

This study is currently in data analysis phase and will hopefully be completed by Congress.

1972
FILLING THE GAP: CREATING A COMMUNITY ASSISTANCE PROGRAM. Brenda Jo Gillund, RN, MS, OCN®, Altru Health System, Grand Forks, ND; and Sarah Heitkamp, Gap, Inc., Grand Forks, ND.

Quality of life for cancer patients is so important, yet often hard to quantify, making it hard to achieve. Working with cancer patients is both rewarding and empowering, as caregivers try to help people enjoy every minute of every day. When the necessity for additional assistance for our cancer patients became apparent, a plan to help solve the problem evolved. Our patients often asked for direction in three major areas of financial burden: transportation, housing and nutritional supplements.

Using critical thinking skills, planning, implementation, and evaluation, we have been able to effectively improve our patients’ quality of life.

The purpose of this presentation is:
• To assist other nurses to identify patient/family needs in their area of practice;
• To describe the process of finding grant availability;
• To describe process of writing a grant;
• To identify how to initiate a community assistance program.

We identified the patients’ needs, explored grants available to facilitate change, wrote a grant, received funding, and implemented the Filling the Gap program. Brenda Jo and Sarah can speak about advocacy for our community, and how a great idea can become a reality.

Patients have been utilizing the Filling the Gap program since October of 2005. We have assisted over 250 patients with gas cards, housing assistance, and nutritional supplements. Patient surveys are used to review perceived quality of life improvement, as well as tracking nutritional response, including weight gain, loss, or stabilization.

Many areas of the USA are comprised of rural areas, some hundreds of miles away from cancer treatment. In our community, services to provide financial assistance with gas money, lodging and nutritional supplements were non-existent. The Filling the Gap program was created to help ease the financial burden while offering support to our cancer patients and families throughout diagnosis & treatment.

Nurses and family members are often the ones who hear the patient’s story of how a disease affects their whole life. We help make a difference in their lives every day, and sometimes a simple plan can snowball into an amazing journey... helping our patients every step of the way.

1975
FAILURE MODE EFFECT ANALYSIS TEAM FACILITATOR: A NOVEL ROLE FOR THE ONCOLOGY NURSE TO IMPROVE CHEMOTHERAPY SAFETY. Norma Sheridan-Leos, RN, MSN, AOCN®, CPHQ, M.D. Anderson Cancer Center, Houston, TX; and Steven Hartnaft, MPH, CPHQ, City of Hope, Duarte, CA.

Chemotherapy is associated with serious and potentially life threatening side effects, and thus has a high risk of causing significant patient harm when errors occur. Throughout the chemotherapy process, from prescribing to patient monitoring, there is a high risk for life threatening errors to occur. The Joint Commission on Accreditation of Healthcare Organizations expects healthcare organizations to conduct an annual proactive risk management activity for high risk processes. Failure Mode Effect Analysis (FMEA) is a proactive risk management assessment that has been successfully used in the non-healthcare industry to prevent errors from occurring. Because oncology nurses have many roles in the chemotherapy process, they are in a unique position to improve this process.
The purpose of this project is to describe how an oncology nurse facilitated the FMEA process to proactively improve the safety of the chemotherapy process. The Oncology nurse facilitator used a variation of the FMEA process developed by the manufacturing industry. Using this process, all of the steps involved in chemotherapy were studied, failure modes were identified, risk analysis and prioritization of risk were completed. Then risk reduction techniques were used to proactively improve the chemotherapy process.

FMEA is useful in identifying potential errors that oncology nurses and other healthcare team members may not realize exist at the organization. Although conducting a FMEA can not ensure that the chemotherapy process will be “fail-safe,” FMEA participants strongly felt that the FMEA process has:
1. Reduced the likelihood of errors occurring.
2. Helped them feel more confident in the chemotherapy process.
3. Improved understanding of the chemotherapy process.
4. Improved the working relationship with other members of the chemotherapy team.

Promoting a culture of safety involves shifting from error measurement to a proactive assessment of potential harm. Because of their pivotal role in chemotherapy, oncology nurses are ideally suited to improve chemotherapy safety.

1979
THE EXPERIENCE OF HOPE IN WOMEN WITH ADVANCED OVARIAN CANCER. Anne Reb, RN, PhD, NP, U.S. Military Cancer Institute/Henry Jackson Foundation, Washington, DC.

Women with advanced ovarian cancer (OVCA) experience significant losses and quality of life concerns upon realizing that they have a life-threatening illness. Maintaining hope may be a difficult challenge given the ongoing uncertainty and fears of cancer recurrence. Greater focus is needed on the psychosocial impact of this illness to identify nursing interventions to facilitate hope in this population.

The purpose of this study was to describe the experience of hope in women with advanced OVCA.

Modified grounded theory methodology with interview approach guided this research. The conceptual orientation was based on symbolic interactionism and constructivist paradigms, which seek to discover the participants’ meaning that arises through social interactions.

Purposive sampling was employed to collect data on 20 women with advanced OVCA who had not experienced a recurrence. A Personal Data Form (PDF) and focused interview guide supported data collection. The PDF addressed demographic and illness information; the interview guide included open-ended questions about hope. Data were analyzed using the constant comparative process including theoretical coding and memoing.

“Facing the death threat” emerged as the women’s main concern; the core variable in dealing with this concern was “transforming the death sentence.” Three distinct phases emerged: (a) shock: reverberating from the impact, (b) after shock: grasping reality and (c) rebuilding: living the new paradigm. Hope, provider communication, and spirituality influenced women’s ability to move through the phases. Four dimensions of the core variable were identified in relationship to two key variables, perceived support and control. Women with low perceived support and control aligned with the dimension “trapped in the illness,” and had difficulty moving through the phases. Women with high support and control seemed most hopeful and able to face the death threat. Focusing on attainable goals and finding meaning in the experience enhanced perceived sense of control.

This study suggests a need for improved provider communication strategies and screening measures assessing distress and symptoms.

Phase-specific interventions are needed to target concerns at critical transition points during the illness. Future research should evaluate creative interventions including group support and complementary therapy approaches to enhance perceived support, control, and hope in this population.

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1981
TURNING LICENSE PLATES INTO CLINICAL BREAST EXAMS. Andria Caton, RN OCN®, Northeast Georgia Medical Center, Gainesville, GA.

In the State of Georgia, health disparities exist for women who are indigent, rarely or never screened. Several counties in Northeast Georgia have overall poverty rates about 13%, Latino and African American populations where poverty rates are higher than other races, and counties where no mammography facilities or community hospitals exist.

In an effort to reduce some of the disparities, the State of Georgia designed a Breast Cancer license plate which can be purchased for $25. $22 of the special fee for the license plate funds breast cancer screening and treatment services for Georgians in need.

In 2006, fifteen $50,000 grants funded from the sale of the Breast Cancer license plates were awarded to various organizations. The Medical Center Foundation of Northeast Georgia Medical Center was awarded one of these grants entitled “Clinical Breast Exam Training”.

Nurses will be trained in CBE using MammaCare Training offered through the University of Florida. With this training, the nurses will be able to perform CBE at community screenings, offices, and clinics, teach CBE to nurses, students, and BSE to community groups. Increasing the number of BSE programs and CBE nurses in the region will help detect breast cancers at an earlier stage, improve access to quality care for women that are indigent, and rarely or never screened.

15 nurses will be selected to participate in the CBE Training Program. Nursing instructors, Lanier ONS members, and community-based nurses will be considered for training.

Nurses will perform CBE at screenings, clinics, or offices, train nursing students or nurses to perform CBE, and/or teach community groups.
A. Train nurses in CBE
   1. Number of CBE Specialists
   2. Number of nurses trained in CBE
B. Train future nurses to be CBE providers
   1. Number of CBE training programs
   2. Number of students trained in CBE
C. Provide CBE to indigent, rarely or never screened women
   1. Number of hours spent performing CBE in clinics/offices
   2. Number of community CBE screenings provided
D. Provide breast health and BSE education to community
   1. Number of BSE education events provided
   2. Number of women referred for screening mammography

Promoting the early detection of breast cancer, and empowering and educating women at high risk are very important roles for oncology nurses.

1983
CANCER SCREENING INITIATIVES WITHIN A COMMUNITY CANCER PROGRAM. Tara Baney, RN, MS, AOCN®, Mount Nittany Medical Center, State College, PA.

The American Cancer Society (ACS) has established that early detection exams and testing can help save lives due to cancers of the breast, colon, rectum, cervix, prostate, testis, oral cavity, and skin.
The five-year relative survival for people with cancers for which the ACS has early detection recommendations is 82%.

As a comprehensive community cancer center accredited by the American College of Surgeons, education/screening activities are a responsibility of our program. Based on the ACS recommendations, disease statistics, and community needs, our cancer programs has chosen to provide screening for prostate, skin and head and neck cancers.

The screenings are held once a year with coordination from the Oncology Clinical Nurse Specialist (CNS) and volunteer assistance from physicians and healthcare professionals. The screenings provide a focused exam and prevention/early detection education. Over the past ten years, the prostate program has provided thousands of exams and PSA tests, with this year’s screening having 95 participants. The skin cancer and head and neck cancer screenings have only been in place for the last three years, yet have provided screening to 86 and 39 participants respectively. In 2006, all of the screenings had participants that required follow up. 13 (14%) men were referred for elevated PSA and/or abnormal digital rectal exams, 8 (32%) participants were referred for abnormal skin lesions and 6 (29%) required follow up for abnormal head and neck exams. All of those requiring follow up were provided with contact information for the CNS who could assist with appointments and financial resources.

Other screenings are being explored since these programs have been successful. In previous years the cancer program has been interested in colorectal cancer screening, but due to physician limitations, it was not possible. However, with newer resources in the community, the cancer program will be exploring this possibility once again.

Approximately 80% of cancer care is provided within communities. Therefore, community programs must identify the screening/early detection programs that will be the beneficial to their communities. With the vast knowledge that oncology nurses have regarding the cancer, they are primary candidates to develop and implement these programs.

1985

PATIENT COMPLIANCE/INCENTIVE STUDY. Rhea Debari, RN, MSN, OCN®, Hartford Hospital, Cancer Clinical Research Office, Hartford, CT; and Camille Servidio, RN, MPH, OCN®, Maria Palomares, BA, Maria Rodriguez-Furlow, and Ilene Staff, PhD, Hartford Hospital, Hartford, CT.

Early screening and detection of breast and cervical cancer is critical and of great interest to Oncology Nurses. The opportunity to be screened however, requires attendance at scheduled appointments. Care providers need to examine strategies to increase patient compliance in attending appointments as a means to improve in cost-effectiveness and resource utilization.

The purpose of this study was to determine if awarding an incentive gift to women enrolled in the Center for Disease Control (CDC) Connecticut Breast and Cervical Cancer Early Detection Program would increase the adherence rate for attending appointments. The study is congruent with the ONS Research Agenda health promotion goal and targets priority indigent women.

The theoretical framework is the Tran theoretical Model and the Processes of Change concept. Prochaska’s model has promotes optimal health by promoting behavioral change. The authors hoped to affect positive changes in behavior, and demonstrate an increase in the appointment compliance rate for clinical breast exams, mammography and Pap screening.

Women scheduling initial or annual appointments were presented with the opportunity to participate. After verbal consent, participants were sequentially assigned to either receive an incentive gift, or to not receive an incentive gift when arriving for their appointment. Participants were aware of their assignment. The incentive gift was a beauty gift provided by Avon with a five-dollar value. The prospective randomized control group design study compares a standard of care group to a second group told they will receive an incentive in addition to the standard materials when they arrive for their scheduled appointment. The outcome measure was whether or not the patient maintained the appointment.

The incentive did not statistically increase adherence rates. There was no statistical difference demonstrated in either group. Both groups were similar in the percentage of attendance. The non-incentive group still received the incentive gift without knowing in advance. Authors attribute several possibilities for the increase in attendance in both groups including information sharing among enrollees, and extra attention during verbal consent providing a more personalized approach. Opportunities exist for further research on more personalized approaches with appointment scheduling.

1986

COLLABORATING TO DEVELOP EVIDENCE-BASED SYMPTOM MANAGEMENT GUIDELINES IN A COMMUNITY ONCOLOGY PRACTICE. Miriam Scholl, RN, MSN, Sandy Purl, RN, MS, OCN®, Laurel Barbour, RN, MS, OCN®, Maureen Gibbs, RN, MS, NP, Mary Beth Mardjetko, RN, MN, Abigail Dillon, RN, BSN, OCN®, and Rossini Dy, PharmD, Oncology Specialists, Park Ridge, IL.

Many patients have problems with symptoms related to cancer treatment despite significant advances in supportive care options. The literature suggests that new knowledge is inconsistently applied in the clinical setting. One strategy for improving this situation is the implementation of evidence-based symptom management guidelines. Oncology Specialists is part of the AIM Higher Initiative, designed to aid in the assessment, information provision, and management of cancer treatment-related symptoms. We are a 10-physician community oncology private practice with 3 locations in the north and northwest suburbs of Chicago, each of which utilizes a primary nursing model.

The purpose of this quality improvement project was to standardize the assessment, education, management, and documentation of symptoms in our practice through the use of evidence-based practice (EBP) guidelines. A Chemotherapy and Biotherapy-Induced Nausea and Vomiting (CBINV) guideline was the first to be developed and became the template for other symptom guidelines.

Our process began with a literature review and the development of a multidisciplinary task force. The National Comprehensive Cancer Network (NCCN) (v. 1.2006) and the Multinational Association of Supportive Care in Cancer (MASCC) (2004) guidelines provided EBP data to update the practice’s previous CBINV guidelines (written in 1998 and first updated in 2003). A baseline chart audit was performed to assess adherence with and effectiveness of the practice’s previous CBINV guidelines.

Data from the chart audit revealed there was an inconsistent and inadequate nursing standard for assessing, educating, managing, and documenting CBINV. The anticipated outcome of this project is improved symptom management for nausea and vomiting as well as greater adherence to the practice’s new CBINV guidelines. Chart audit data will be collected six months post implementation of the CBINV pocket guide.

Evidence-based guidelines are tools that empower clinicians to make appropriate decisions. We used a collaborative approach to develop guidelines for CBINV and subsequently for diarrhea, constipation, and hypersensitivity reactions.
1987
MULTIDISCIPLINARY DEVELOPMENT OF PALLIATIVE CARE SYMPTOM MANAGEMENT GUIDELINES. Kerry Mahar, RN, MSN, AOCN, Nancy Murphy, RN, and Eileen Molina, RN, Brigham and Women’s Hospital, Boston, MA.

Evidence-based symptom management is important for all areas of oncology nursing practice, but especially in palliative care where worsening symptoms can significantly decrease patients’ quality of life. Prior to opening an acute palliative care unit we formed a multidisciplinary team to develop evidence-based guidelines for the symptoms commonly seen in the patients treated in our Pain and Palliative Care program. Nurses from several roles (staff nurse, nurse educator and palliative care NP) were part of this team.

The goal was to develop a set of evidence-based guidelines to manage five symptoms: pain emergency, nausea, dyspnea, constipation and delirium. Since oncology nurses (through information published by the Oncology Nursing Society) are very familiar with evidence-based guidelines, they are often highly valued members of guideline development teams.

After the guidelines were developed we implemented them on the inpatient palliative care unit. Whenever a patient on the unit experienced one or more of the symptoms, a member of the palliative care team, (physicians and nurse practitioners), wrote an order to implement the relevant guideline so that all of the staff would manage that patient’s symptoms according to protocol. Nurses soon became accustomed to referring to the guidelines when communicating with the medical interns about a symptom and the recommended course of action.

The nursing staff found the guidelines easy to use and very effective in managing their patients’ symptoms. Being an integral part of the development team, the nursing staff readily accepted the guidelines, even when recommendations required more aggressive interventions to maintain patient comfort. Tracking of Press Ganey scores were used to compare patient satisfaction pre- and post guideline implementation and between the palliative care unit and non-palliative care units.

The process that we followed to develop and implement evidence-based guidelines to manage these symptoms on our inpatient palliative care unit may help other oncology nurses with guideline development. Involvement of the end-users and advocates for optimal patient care in the palliative care setting was key in the success of this program.

1990
ADDRESSING THE CHALLENGE OF INCREASING FRONTLINE ONCOLOGY NURSES’ INVOLVEMENT IN COMMITTEE WORK. Lillian Pedulla, RN, BSN, MSN, and Marsha Fonteyn, PhD, RN, Dana-Farber Cancer Institute, Boston, MA; and Katherine McDonough, RN, MS, The McDonough Group, Norwood, MA.

Many health care institutions struggle with the dilemma of how to attract and sustain staff nurse participation in committee work. Based on shared decision-making, the Nursing Council at our academic ambulatory oncology center inherently depends upon nursing staff involvement. Several committee chairpersons reporting into the Council expressed concern regarding low attendance and participation among the staff nurses. Data on staff nurses’ membership in hospital based committee work showed that approximately 10% were active members of multiple hospital wide committees, while the remaining 90% had minimal to no involvement.

To address the problem of low staff nurse involvement on committees, the Council asked the Evidence Based Practice (EBP) Committee to explore two primary questions: What factors motivate nursing staff to become actively involved in committee work? What factors impede participation?

The EBP Committee found minimal evidence in published nursing literature to answer these questions. Consequently, the committee decided to obtain (expert opinion) evidence by implementing focus groups interviews with nursing staff who were active members of multiple committees. The EBP Committee developed a series of open-ended questions. Nurses belonging to multiple committees were invited to attend one of two ninety-minute, focus group sessions. Two EBP Committee members facilitated the sessions and a third member took notes. By consensus, the sessions were audio-taped. Synthesis of information from these sources provided detailed information about what factors motivate and impede nursing staff involvement on committees.

The project successfully provided answers to the two questions posed to the EBP Committee. Several recommendations were presented to the Nursing Council, including the re-examination of the Council and committee structure. To date, numerous practice changes have occurred and have contributed to increased staff participation.

Information gained from focus groups can be an excellent source of evidence when there is little available in the published literature. The description of how we collected new evidence through focus groups will be useful to nurses in a variety of specialties and/or settings.

1992
CONFLICT OF INTEREST: MORE THAN YOU THINK. Sally Brown, RN, BSN, MGA, OCN, CCRP, Franklin Square Hospital Center, Baltimore, MD.

Conflict of interest is inherent in clinical research. The concept has come under increased scrutiny in recent years as clinical research has expanded from academic centers to community hospitals and private physicians’ offices. The most visual form of conflict of interest is financial as the majority of oncology research receives external financial support. Cooperative trials groups and pharmaceutical and device companies provide financial support for entering patients into clinical trials. Cooperative trials groups are increasing their collaboration with and funding from industry sources. This escalates the potential for conflict of interest in cooperative group studies. Physicians may have a financial stake in the success of the involved pharmaceutical or device company by holding stock or functioning as a private contractor with a company by participating in a speakers’ bureau or on an advisory board.

Conflict of interest does not necessarily mean there is inappropriate conduct, but it could be viewed as potentially inappropriate.

Non-financial conflict of interest is less visual involving coordinators as well as investigators.

Coordinators have a potential conflict of interest if accrual and delinquency rates are linked to evaluations and promotions. The need or desire to publish paradigm-changing results can be perceived as conflict of interest in the conduct of research. Another form of conflict of interest is physician-investigator confusion. If the treating physician is also the research investigator, the patient who has confidence in his/her physician, has the potential to agree to participate in research in order to maintain that relationship with the physician.

Several authorities have addressed aspects of financial disclosure. There remains a need to determine the degree of disclosure that should be presented to potential participants. Exploration of the consequences of non-financial conflict of interest and the development of methods to reduce any impact are needed.

1994
INTRASPINAL ANALGESICS IN THE MANAGEMENT OF CANCER PAIN. Ellen Debondt, RN, BSN, OCN, Seattle Cancer Care Alliance, Seattle, WA.

Pain management can be a challenge in certain patients with cancer because of inadequate analgesia and intolerable side effects from
systemic analgesic medications. In intraspinal analgesic therapy, opioids and other analgesic agents are introduced directly into the central nervous system by infusion (epidural or intrathecal) and can be highly effective for the management of cancer pain. The role of nursing in patients receiving intraspinal analgesics is crucial to successful management of these patients.

The purpose of this is to provide education to oncology nurses on the use, appropriateness and nursing care of patients receiving intraspinal analgesics in the management of cancer pain.

In this poster I will provide an overview of the intraspinal routes, the differences and nursing care of implanted versus externalized intrathecal catheters, the medications used and the potential complications and side effects. I will also discuss appropriate patient selection, titration, and home care management. A case study will be presented outlining pain management options used prior to intraspinal analgesics and the trial, titration and rotation of various intraspinal analgesics used to come up with a successful pain regimen.

Oncology Nurses functioning as care coordinators, patient advocates and patient educators need to be knowledgeable on the availability and use of intraspinal analgesics as an option for management of cancer pain.

Although most patients with cancer pain, estimated at greater than 90% can be effectively managed with the use of systemic opioids, intraspinal analgesics should be considered in patients with intractable pain or experiencing intolerable side effects with systemic analgesic medications. The use of intraspinal analgesics can provide profound analgesia with minimal side effects. Nursing care and assessment is a crucial part of effective and on-going management of patients receiving intraspinal analgesics.

1995

STRESS, COMPASSION FATIGUE, AND BURNOUT: EFFECTIVE SELF-CARE TECHNIQUES FOR ONCOLOGY NURSES. John Luquette, MA, LPC, LDCC, CGP, University of Texas M.D. Anderson Cancer Center, Houston, TX.

Implicit in patient care is the nurse’s interpersonal and empathetic connection with patients and their families. Continued negotiation between professional standards, personal ego integrity, and patient needs within the therapeutic relationship leave the nurse vulnerable to stress, compassion fatigue, and burnout. Effective use of self-care techniques by oncology nurses contribute to improved patient care and increased job satisfaction.

Research links stress to physiological conditions like cardiovascular distress, immunosuppression, and gastro-intestinal problems. Stress adversely impacts attention, concentration, critical thinking, and other cognitive functions. Family and social relationships suffer. Stress levels contribute to reduced patient satisfaction, increased employee health costs, increased spending for recruiting, and unnecessary turnover.

Meta-analyses of stress research support the effectiveness of interventions. Research suggests that combinations of interventions appear to be more effective than any single intervention. Nurses usually learn self-care strategies through personal experience or the advice of colleagues.

This presentation identifies and describes effective self-care techniques employed by oncology nurses.

Research supports the effectiveness of cognitive-behavioral interventions. This broad class of interventions includes such detachment techniques as distancing and debriefing, guided imagery, assertiveness or other skills training, and establishing professional or personal boundaries.

Relaxation training includes such techniques as diaphragmatic breathing, meditation, progressive muscle relaxation, and guided imagery. Once mastered, some techniques may be used unobtrusively while working.

Group techniques rely on members sharing and accepting information, assistance, and support with each other. These include formal debriefing, grief support, and Critical Incident Stress Debriefing groups as well as unstructured acts of caring and assistance. Existential techniques try to find meaning in life and suffering. Prayer, personal reflection, meditation, and restoring a life balance represent these strategies.

Providing oncology nurses with multiple self-care techniques minimize the consequences of stress, promotes better patient care, and increases their job satisfaction.

Future research might focus on matching specific strategies to individual nurses or specific circumstances.

1996

PALLIATIVE CARE FROM THE INSIDE OUT: DRAWING UPON EXISTING RESOURCES TO DELIVER EFFECTIVE SERVICES. A PILOT PROJECT OF A PALLIATIVE AND SUPPORTIVE CARE SERVICE (PSCS) ON THE ONCOLOGY UNITS AT THE UNIVERSITY OF ARIZONA MEDICAL CENTER (UMC). Virginia LeBaron, RN, ACNP, AOCN®, University of Arizona College of Nursing, Tucson, AZ; and Susan Bohnenkamp, MS, APRN-BC, CNS, CCM, and Ana Maria Lopez, MD, MPH, FACP, University Medical Center, Tucson, AZ.

Palliative medicine is now recognized as an essential component of comprehensive cancer care, and the literature demonstrates that patients and oncology nurses benefit from access to effective palliative care teams. UMC is a leading referral site for oncology services in the State of Arizona, but prior to initiation of this project had no organized palliative care services. The vision of the hospital palliative care committee served as a foundation to begin a pilot palliative care service and education project to enhance quality of life for patients and caregivers while improving patient, caregiver, and staff satisfaction.

- To implement a palliative care pilot project with the inpatient medical oncology team.
- To deliver a palliative care nursing curriculum that will establish a corps of “Palliative Care Resource Nurses” within UMC, the Arizona Cancer Center, and in the state.
- Created an interdisciplinary PSCS team from preexisting clinicians within UMC.
- Conduct bi-weekly PSCS meetings to discuss patient needs and round daily with the oncology team.
- Develop and implement formalized PSCS assessment and outcome measurement tools.
- Refine referral criteria and methods to market the PSCS.
- Self-selected RNs participate in monthly End of Life Nursing Consortium (ELNEC) educational programs, which will be broadcast using telemedicine technology to nurses throughout Arizona.
- Ongoing palliative care education is planned.
- Primary endpoint is to assess feasibility and acceptability of the PSCS.
- Referred patients/families and referring staff will assess their experience and comment on perceived benefits and areas for improvement.
- Staff participating in palliative care education will evaluate each session and pre and post testing will occur.

The implementation of a pilot PSCS, along with the concurrent training of a cadre of Palliative Care Resource Nurses, will enhance the delivery of palliative care and improve the oncology nurse’s ability to identify and manage the complex, holistic needs of seriously
ill patients. It is hoped that results from this pilot work will serve as a foundation for expanding palliative care within UMC, and may also serve as a guide for other hospitals with limited resources who desire to develop palliative care services.

2004
SUCCESSFULLY INTEGRATING THE NURSE PRACTITIONER ROLE INTO AN ONCOLOGY PRACTICE. Nancy Leahy, RN, MSN, CRNP, AOCN®, Albert Einstein Medical Center, Philadelphia, PA.

In the changing oncology environment it is even more important to establish a collaborative practice between all the members of the oncology practice. More nurse practitioners are being employed by oncologist to provide quality, cost-effective care with high levels of patient satisfaction.

The process and requirements of successful integration of the nurse practitioner role into an oncology practice will be discussed. The success of the integration of the nurse practitioner role requires a clear, articulated job description, mentoring, support and willingness to delegate. The factors that inhibit successful integration also must be recognized and addressed to facilitate the success of the nurse practitioner in oncology practice. The true success of the integration into practice is the willingness of the physician to utilize the nurse practitioner, understand the nurse practitioner scope of practice and to understand the value of the role of the nurse practitioner.

The process will experience increased revenue, efficiency, patient satisfaction and collegial input. The self-evaluation of the performance appraisal will demonstrate the NP’s satisfaction with the role integration.

The nurse practitioner in oncology is becoming an efficient addition to the practice in providing cost-effective care to the patient while providing the practice with expertise and revenue. The success of the integration of the role into practice will benefit all of the practice and especially the patients.

2005
ADVOCATING FOR ONCOLOGY NURSE PRACTITIONER SCHEDULE II NARCOTIC PRESCRIPTIVE AUTHORITY IN PENNSYLVANIA. Nancy Leahy, RN, MSN, CRNP, AOCN®, Albert Einstein Medical Center, Philadelphia, PA.

As a certified registered nurse practitioner (CRNP) practicing in the state of Pennsylvania, the current prescriptive authority limits prescribing Schedule II narcotics to a 72-hour supply. This includes any Schedule II medication regardless of the patient and their pain regimen. Working under a collaborative practice agreement, the nurse practitioner (NP) can prescribe chemotherapy, treat and prescribe for most symptoms and side effects the oncology patient may encounter, but not treat pain with Schedule II narcotics.

The purpose of this project is to develop a method to assist nurse practitioners in advocating for a change in their prescriptive authority in Pennsylvania.

CRNPs of Pennsylvania must network with peers and organizations such as Nurse Practitioner groups, Advanced Practice Nurses groups and ONS. It is imperative for the NP to discuss this matter with their collaborating physicians to gain their support in getting heard. Once more NPs become aware of this serious problem, they must contact their local officials and the governor to seek their support in bringing this to the State Board.

The success of the intervention will be determined by the number of NPs writing, emailing, networking etc to tell the State Board something needs to change. As we move forward, Governor Rendell will learn of the need of his support for this specific matter as he continues to support the NP role in Pennsylvania.

The specialty nurse practitioner needs to be able to treat the patient population in total, not only partly. This is imperative when pain is the symptom not being able to be treated efficiently and effectively due to the current prescriptive authority. Medical oncologists are employing more nurse practitioners to provide efficient, cost-effective care to their patients working autonomously under the collaborative practice agreement. The current limitation of 72-hour supply for Schedule II drugs impedes this autonomy and diminishes the efficiency of the patient encounter.

2006
“SUN SAFE SAFARI”: A UNIQUE METHOD OF EDUCATING SCHOOL AGE CHILDREN ABOUT SUN SAFETY. Victoria Chambers, RN, OCN®, Helen Roorda, RN, BSN, OCN®, and Patricia Wang, RN, OCN®, Florida Hospital Cancer Institute, Orlando, FL.

In 2006, there were approximately 63,000 new cases of melanoma and over a million new cases of basal and squamous cell skin cancer. American Cancer Society recommends the following guidelines for prevention: Limit or avoid sun exposure, wear a hat and sunglasses to protect the face, neck and ears, wear a long-sleeved shirt, and use sunscreen with a SPF of 15 or higher. According to the American Cancer Society, severe sunburns in childhood can greatly increase risk of melanoma in later life. Knowledge, passion for teaching and sense of commitment put Oncology nurses in the best position to reach out to the community, especially young children, and provide education regarding sun safety.

Given the short attention span of young children, the information needs to be presented in a short, fun, entertaining format. Sun Safe Safari was created with the goal of reaching 100 children every month.

This is accomplished by contacting elementary schools and after school programs. The Sun Safe Safari team consists of 4 actors, 1 musician and a director. There is a pretest and a post test that the children take home and complete with their parents. Both tests are collected and returned to the director for grading. The program lasts 20 minutes and revolves around a grape named Alex, a raisin named Randi and a storyteller named Moondoggie. Randi the raisin tries to convince Alex the grape that he will turn into a raisin too if he doesn’t use sun safety. “Slip on a shirt, slop on some sunscreen and slap on a hat”. Bright colorful costumes, music and games encourage the children to participate. The children also receive a packet which includes a safari hat, sun screen, lip balm, a bottle of water and an activity booklet. To date, the scores of the pretest and post-test have shown an improvement of 75% in sun safe knowledge.

Currently in development is collaboration with the Girl Scout Council to create a Sun Safe Safari patch. With a little creativity, talent and motivation, this concept could easily be recreated and used in any community setting.

2007
ONCOLOGY NURSING AND COMPASSION FATIGUE: CARING UNTIL IT HURTS. WHO IS CARING FOR THE CAREGIVER? Lori McMullen, BSN, RN, OCN®, University Medical Center at Princeton, Princeton, NJ.

The feeling of empathy which is a key component to a therapeutic relationship with a client and family can become overwhelming in a field that demands strength and resiliency. Working with cancer patients challenges the oncology nurse with a variety of difficult issues, from ethical concerns and palliative care, to intense interactions with patients and families to intricate treatments and end of life decisions. The consequence of this constant expenditure of empathy is called compassion fatigue, literally caring until it hurts. Compassion fa-
tigue, a stress response that is sudden and acute has been defined as a physical, emotional and spiritual fatigue or exhaustion that takes over a person and causes a decline in his/her ability to experience joy or care for others. If not recognized and treated, compassion fatigue can interfere with the ability to give quality nursing care that is safe and effective, can cause physical and emotional exhaustion, and result in depersonalization and ultimately burnout.

The purpose of this study is to examine the ability of the oncology nurse to recognize compassion fatigue and to examine the organizational support systems available to the inpatient and outpatient oncology nurse.

This study is supported by the humanistic theory of Paterson & Zderad and Baston’s social psychology theory, the empathy altruism hypothesis. The relationship of compassion fatigue and stress is supported by the work of Lazarus and Folkman.

A descriptive and correlational survey will be used by distributing a self-completed survey to ~30 oncology nurses at a local chapter meeting of ONS. Inpatient and outpatient oncology nurses at a community based hospital will be asked to participate in the study. The measure will be the Professional Quality of Life Scale (ProQOL): Compassion Satisfaction, Burnout and Compassion Fatigue/Secondary Trauma Scale by Stamm (1997-2005). Demographics will be collected to establish field of practice and availability of organizational support system.

Preliminary implications suggest that oncology nurses are ignorant of the term and associated symptoms of compassion fatigue. While prevention is clearly the most effective means of coping with compassion fatigue, it seems that health organizations are not supporting the psychological well being of staff.

2008

RECOGNIZING ONCOLOGY CRISIS IN THE EMERGENCY DEPARTMENT: A STAFF-DRIVEN IMPROVEMENT PROCESS. Lisa F. Cull, BS, RN, OCN®, Middlesex Hospital Cancer Center, Middletown, CT; Mary-Beth Nolan, MSN, RN, CEN, Middlesex Hospital, Middletown, CT; Anne Campbell-Maxwell, MBA, BSN, RN, Middlesex Hospital Cancer Center, Middletown, CT; and Jacquelyn G. Calamari, MS, BSN, RN, CEN, Kathy Palaski, RN, and Cyndy Marotta, RN, Middlesex Hospital, Middletown, CT.

Increasingly, oncology patients present in the Emergency Department seeking care during their disease continuum. Knowledge of new treatment modalities as well as astute assessment skills to recognize a related host of symptoms and side effects are now critical competencies for safe emergency management of these patients. Specialized care for cancer-related emergencies has evolved as a hybrid of oncology and emergency medicine.

The purpose of this clinical project was to use an evidence-based, interdisciplinary approach to improve the quality of emergency oncology care through collaboration, education, resource support and creation of best practice protocols.

An interdepartmental project team comprised of nursing staff, managers and nurse educators from the Emergency Department and the Cancer Center examined current care practices, patient outcomes, available education and resources to determine the quality of emergency oncology care. Based on the data, communication between staff and a review of the current literature in oncology emergencies, a number of areas were identified to improve patient management. The improvement initiatives included: design and implementation of a “Vital Oncology Facts” guide for the triage reference manuals with pocket versions provided to staff; standardization of the oncology triage process; development and presentation of “Oncology Emergencies” as an educational series with analysis of case studies; and enhancement of the Emergency Department’s reference libraries with the addition of two new oncology emergency resources.

This collaborative initiative achieved outcomes in the following domains: enhanced nursing staff competency and confidence in oncology emergency care; improved time to treatment with the oncology patient identified as a triage Emergency Severity Index score of “2”; and expanded network of oncology care collaboration across outpatient, inpatient, and emergency care settings in order to standardize best care practices. This has resulted in the development of a continuum-based oncology neutropenic pathway.

The interdisciplinary cooperation between emergency and oncology specialties cultivates professional development, quality improvement initiatives and opportunities for oncology-emergency education to enhance patient outcomes.

2009

ONCOLOGY NURSE AS A COLON SCREENING NURSE NAVIGATOR. Charlene Marinelli, RN, BSN, OCN®, Nora Katurakes, RN, MSN, OCN®, and Sandra Donnelly, RN, OCN®, Helen F. Graham Cancer Center, Christiana Care Health Services, Newark, DE.

Colorectal cancer deaths in Delaware are the third highest. Mortality is higher among African Americans than Caucasians. Colonoscopy is a reliable screening test. Few Delawareans take advantage of this life saving test. Behavioral Risk Factor Surveillance Survey (BRFSS) 1999 data reported, 45% Caucasians and 39.6% African American Delawareans ever have a sigmoidoscopy or colonoscopy screening.

In 2002, the Delaware Cancer Consortium initiated a comprehensive statewide community-focused colorectal cancer screening program. A full time Colorectal Screening Nurse Navigator (CRCNN) was housed in each major health system. Christiana Care Health System (CCHS) hired 2 part-time Oncology Certified Nurses specializing in community outreach to provide culturally sensitive outreach and recruitment, ensure screening access and scheduling, monitor screening compliance, and ensure prompt clinical evaluation and follow-up to positive testing.

The CCHS CRCNN shared their oncology nursing expertise to create program materials and recruit individuals 50 years and older, mostly African Americans, uninsured living in geographic areas determined to be high risk. Assistance was provided to overcome barriers to screening e.g., if uninsured, enroll in the state funded colon screening program. Partnerships were fostered with community organizations and the medical community to assist with referrals. The CCHS CRCNN participated in the development and implementation of a web-based data system designed to assist in case management and tracking through intake, planning, screening and follow up.

BRFSS data 2004 reported a statistically significant increase in Caucasians and African Americans (62.3% and 58.4% respectively) ever having a sigmoidoscopy or colonoscopy. CCHS CRCNN case managed 690 individuals. A portion (230) were found to have un-surmontable barriers (comorbid conditions and unable to contact) could not complete screening. Colonoscopy was completed by 274 (40%) individuals, 85 were enrolled in the state funded program, and 86 were African American. Using the web-based data system, 166 individuals continue to be case managed with new enrollees added daily.

Oncology nurses contribute key attributes and experiences to increase public awareness and educate about colon cancer. Further, they assist with access to insurance and navigate difficult or complex families from diverse populations to increase screening rates in Delaware.
2010
A NURSE CAN SAFELY DELIVER RITUXIMAB OVER 90 MINUTES. Peggy Corey, RN, BSN, OCN®, Ronald Go, MD, and Ana Schaper, RN, PhD, Gundersen Lutheran Health System, La Crosse, WI.

Implementation of evidence-based practice protocols for cancer treatment can benefit patients' quality of life and maximize utilization of available resources. Recently, three studies from academic centers suggest that rapid rituximab infusion (RRI), which reduces infusion time from 4 hours to 90 minutes in the treatment of non-Hodgkins lymphoma (NHL), is well tolerated and safe. However, cohorts in these studies were small and may not be reflective of the patient population treated in the community setting. Nurses, as patient advocates, need to be cautious of changes in treatment regimes, when based on limited evidence.

For this project, the oncology nursing staff prepared with a physician to investigate the feasibility of RRI at a community-based cancer center.

Patients with NHL, were enrolled in this modified treatment program if they had received rituximab according to product monograph within the last 4 months, no prior grade 3 or 4 infusion related toxicities, no contra-indication to fluid infusion of 200 ml/hr, and an absolute lymphocyte count of <10,000. Patients were pre-medicated with acetaminophen and diphenhydramine. Rituximab was infused in 90 minutes (20% dose first 30 minutes; 80% dose next 60 minutes). Nurses monitored patients during and after infusion for toxicity as defined in common terminology for adverse events.

Thirty-three patients were treated for total of 88 infusions (median 3). Clinical profile includes: median age of 69 years (range 32 to 88), 70% male, 67% stage III/IV disease. Chemotherapy regimens included: 33% CHOP (cyclophosphamide, vincristine, doxorubicin, prednisone), 21% CVP (cyclophosphamide, vincristine, prednisone), 3% CF (cyclophosphamide, fludarabine), 6% CEP (cyclophosphamide, etoposide, prednisone), and 36% rituximab alone. No adverse events were observed for the 90-minute rituximab infusions.

Rrituximab infused over 90-minute was safe in the treatment of NHL and well tolerated in this community cohort. Both rituximab and chemotherapy were infused within 4 hours. The reduced infusion time allowed patients more control and flexibility in treatment scheduling, and more time away from the facility. In addition, shorter infusion times improved access in the chemotherapy suite.

2014
REDUCING BARRIERS TO PAIN & FATIGUE MANAGEMENT FOR CANCER PATIENTS. Tami Borneman, RN, MSN, CNS, Betty Ferrell, PhD, FAAN, Virginia Sun, RN, MSN, and Marriana Koczywas, MD, City of Hope National Medical Center, Duarte, CA; Barbara Piper, DNSc, RN, FAAN, AOCN®, University of Arizona, Scottsdale, AZ; and Gwen Uman, RN, PhD, Vital Research, LLC, Los Angeles, CA.

Pain and fatigue impact all dimensions of the patient’s life including physical, psychological, social, and spiritual well being. The overall purpose of this prospective longitudinal study funded by NCI is to test an innovative model of reducing barriers to managing pain and fatigue in cancer patients using evidenced-based guidelines from the National Comprehensive Cancer Network. The model, “Passport to Comfort” addresses patient, professional and system barriers to the relief of pain and fatigue, and is based on evidence based guidelines developed by the National Comprehensive Cancer Network.

The study, conducted in a comprehensive cancer center is designed in three phases. In Phase I: Usual care, we described the current status of pain and fatigue management in 83 patients with breast, lung, colon or prostate cancer. Methods of data collection included 7 ques-

2015
POPULATION-BASED NURSE-INITIATED CANCER SYMPTOM MANAGEMENT: DESCRIPTION OF AN ONGOING PROGRAM. Carol Kamhi, MSN, APRN, BC, Oxford Health Plans, a United Healthcare Company, Trumbull, CT; Richard Weininger, MD (board certification: heme, onc), OncoMetrix, Inc., Claverack, NY; Ramona Hays, RN, BSN, Oxford, a United Healthcare Company, Trumbull, CT; and Elizabeth Micholovich, BS, MPA, SecureHorizons, a United Healthcare Company, Trumbull, CT.

A major Northeast health insurance company recognized an opportunity to reduce complication prevalence and related hospitalization in patients undergoing cancer treatments using an innovative nurse case management model.

This program’s purpose is to reduce admissions related to preventable treatment and disease complications. This telephonic care management (TCM) model was designed for patients undergoing active chemotherapy or radiation cancer treatments focusing on those at highest risk of preventable hospitalization.

Selection criteria were developed and tested to identify those patients at highest risk. These criteria were used to create a “risk index” based on: diagnosis (excluding childhood malignancies and acute leukemias); disease stage; particular treatments (e.g.: platinum based therapy); caregiver support; and hospital admission history. The risk index was used to stratify the TCM intervention’s intensity provided to the patient.

Preventable hospitalization criteria were developed based on ICD-9 codes to create a matrix from which hospital claims could be used to identify preventable hospitalizations for nausea, vomiting, diarrhea, dehydration, infection, hematologic abnormalities, respiratory problems, and others.

Telephonic nursing assessment tools were created to evaluate signs and symptoms of treatment complications to intervene proactively with patients and their healthcare team to help establish care in the appropriate setting.
Program results were assessed by the ability to demonstrate a reduced level of preventable hospital admissions. Admissions were assessed for ICD-9 codes fitting these criteria over time and compared to an unmanaged population. Initial, early, results have shown a positive effect on complication measures: prevalence, admits per 1,000, admits, and average length of stay for managed patients versus those patients who did not receive case management. These outcome parameters represent core goals for oncology nurses.

By intervening proactively with patients and their healthcare team and helping support timely care in the appropriate setting, preventable hospitalizations are reduced. The approach and developed tools outlined here can be adapted for use by oncology nurses in other clinical settings to reduce morbidity of cancer and related treatments. Additional analysis will be conducted on this model’s impact on enhancing the health care team’s care coordination as it relates to preventable hospitalizations, treatment outcomes, and patients’ quality of life.

2016
THE CLINICAL SCHOLAR: FORMAL RECOGNITION OF NURSE CLINICIANS’ COLLABORATIVE ACTIVITIES. Marsha Fonteyn, RN, PhD, OCN®, Martha Healey, RN, MSN, FNP, Naoe Suzuki, MFA, and Susan Bauer-Wu, RN, DNSc, Dana-Farber Cancer Institute, Boston, MA.

The nurse scientists and other staff in our nursing research center, located in a NCI-designated Cancer Center, are continuously seeking ways to encourage the nurse clinicians at our institution to become more involved in the research, evidence-based practice and scholarly activities of the research center. Such collaboration is not only mutually beneficial, but also provides a mechanism for more rapid translation of new knowledge into clinical practice.

To encourage and promote further involvement of nurse clinicians with our nursing research center activities, we have developed the Clinical Scholars Program. Guided by principles of Transformational Leadership theory, we use role modeling and ceremony to build and sustain a nursing culture committed to inquiry and scholarship.

The Clinical Scholar was originally conceived (four years ago) as a mentored research experience that would link a clinician with a nurse scientist by providing a mechanism for the Scholar to receive release time and funding to carry out a small research project. This expensive and labor-intensive approach meant that we had to limit the number of Clinical Scholars to one a year, thus slowing progress towards our goal of creating a culture of inquiry and scholarship in nursing practice at our Cancer Center. Now, three years since its inception, we have expanded the Clinical Scholar Program to encompass more of our nursing staff.

In the spring of 2007, we will formally recognize over 30 nurse clinicians as Clinical Scholars for their collaborative work with the nurses from our research center. Correspondingly, the number of collaborative projects (evidence-based practice and research), presentations and publications has remarkably increased and feedback from those involved has been very positive.

Establishing a mechanism to encourage and reward collaboration between nurses from clinical practice and a nursing research center can be transformational in creating a culture of inquiry and scholarship in nursing practice. Our recognition program could be easily adapted to a variety of settings as an effective strategy for increasing the involvement of clinical oncology nurses in research and other scholarly activities.

2019
REVITALIZING YOURSELF: MAKING TIME 4U. Susan Politsky, RN, MSN, CNA, BC, Fox Chase Cancer Center, Philadelphia, PA.

Oncology nurses, particularly those who work in critical care settings, are at risk for developing moral distress which can be from medical futility and bad deaths, burnout and compassion fatigue, which can lead to poor nurse satisfaction.

Allowing staff the opportunity to verbalize and discuss their feelings of work related stress in a forum, validated their feelings and allowed them an opportunity to share similar experiences with one another.

The purpose of this program was to provide the ICU staff an opportunity to relax their minds and participate in activities that included: song, yoga, meditation, affirmations and therapeutic massages. The model behind this theory was adapted from an oncology article which supported a retreat day to allow staff to decompensate due to stressful work encounters.

My program was designed as a corroboration of staff issues regarding some ethical issues that recently occurred in the unit. This program offered them a safe place, among their colleagues to discuss their recent feelings and de-stress with some activities which promote healthy work environments. Participants who provided services included convenient employees who have been trained in their fields of expertise such as in yoga, meditation and therapeutic massage.

Some of the activities included having staff complete a Compassion Fatigue Survey, utilization of the American Association of Critical Care Nurses: The 4 A’s to Rise Above Moral Distress, Good Death versus Bad Deaths, Reviewing the ANA Code of Ethics, Reviewing Fox Chase Cancer Center policies on ethical dilemmas. All staff were treated a 45 minute therapeutic massage.

This program is designed to be offered every other month until all of the ICU staff attend. Staff are required to be off from work the day before the program in preparation for this educational offering.

Implications for nursing practice include employers to be aware of issues such as moral distress that can be affecting their staff and allow an interdisciplinary team to begin to manage these issues which affect the work environment. As an employer, being aware of the culture of the work environment is invaluable to produce high quality health care providers.

2025
EDUCATION: THE KEY TO SAFELY IMPLEMENT A CLINICAL TRIAL. Anna Vardeleon, RN, OCN®, and Donna Gerber, RN, MN, PhD, AOCN®, M.D. Anderson Cancer Center, Houston, TX.

New scientific discoveries have led to the discovery of pathways that can be targeted in the battle against cancer. New targeted therapy clinical trials are more complex and require planning and education to safely execute.

Ensuring patient safety during their participation in a clinical trial requires careful planning and development of materials to educate the staff nurses, patient and family members what measures are required for participation and their role in the successful completion of the trial. Also, patients who travel to a comprehensive care center to participate in a clinical trial may present to the local emergency room after returning to their home area and information is needed by the local physician regarding the medications that the patient is receiving.

The research nurse needs to review the clinical trial requirements and receive input from the principal investigator as needed. Then educational material needs to be developed for the patient and family to ensure safe participation. These materials will also assist in the success of the clinical trial. These materials include drug-drug (including herbal supplements) interactions, food-drug interactions, clinic appointments, specimen collection, instructions on what to do for anticipated side effects of treatment, proper handling and storage of medication and contact information. A patient can give a copy of this material to their home area physician so that they can understand...
stand what the patient is receiving and do appropriate interventions if required.

Evaluation is seen in the execution of clinical trials with fewer deviations and violations. Safety is enhanced as those involved with the care of the patient have access to these educational materials.

Thus, research nurses must be innovative in creating educational material that patients can use so that clinical trials can be executed safely for everyone involved.

2028

WHO, WHAT, WHEN, WHERE AND WHY: IMPLEMENTATION OF AN EVIDENCE BASED PRACTICE MODEL IN AMBULATORY CARE. Mau-reen Major Campos, RN, MS, Ethel Law, RN, MA, Melanie Carrow, RN, OCN®, ACRN, and Rori Salvaggio, RN, MS, Memorial Sloan-Kettering Cancer Center, New York, NY.

To promote nursing science and best practice at this NCI-designated Comprehensive Cancer Center, an Evidence Based Practice (EBP) initiative was implemented by the Director of Nursing Research and Practice, with support of the Chief Nursing Officer. A Departmental Practice Committee was established with representation from all patient care areas, and its mission is to foster and guide EBP throughout the institution.

The Ambulatory Practice Council was designated to develop and oversee EBP initiatives in the outpatient setting. Membership consisted of staff nurses with varying levels of professional experience. A Chair and Co-Chair were selected to facilitate group processes and report activities to the Departmental Practice Committee.

Our goal was to educate nurses on the theory and application of EBP methodology so that our institutional guidelines and standards of practice reflected the latest scientific evidence.

Educational methods included didactic lectures and individual guidance throughout project development. Four practice questions were identified as models for application of learning. The nurses were educated on framing the practice question, searching and analyzing the evidence, applying the evidence to practice and evaluating outcomes. Internal and external consultation with experts and development of partnerships with other disciplines was encouraged.

The creation of a virtual office and utilization of centralized tools for reporting and presentation eased communication among the nurses. Mentors, including a librarian and research assistant were available.

An evaluative measure of success was the completion of four EBP projects, demonstrating members’ learning and competency. Nurses from each project were able to present their clinical question to various audiences. Project members indicated that the success of this EBP model was dependent on nursing leadership support and designated “protected time” for EBP activities. A survey of knowledge acquisition and satisfaction was performed and will be reported. Future educational initiatives will be based on survey analysis.

Expansion of EBP methodology in this outpatient department will require reorganization of members throughout our council structure to allow experienced nurses to mentor other outpatient staff in the EBP process. This presentation can provide a demonstration for other oncology nurses on successful implementation of an EBP model of care at the bedside.

2030

HITTING THE JACKPOT: ENHANCING APN KNOWLEDGE FOR THE ONCOLOGY ACUTE CARE SETTING. Janet Sirilla, RN, MSN, OCN®, and Phyllis Kaldor, RN, MS, OCN®, OSU James Cancer Hospital & Solove Research Institute, Columbus, OH.

As the ACGME (American Council for Graduate Medical Education) Guidelines for resident and fellow hours became more restrictive, a gap was created in many academic medical centers. Increasingly, at this institution the gap is filled by Nurse Practitioners. Currently, few Nurse Practitioners are trained for the acute care setting and it is difficult to recruit acute care NPs to a non-ICU setting. Therefore, in addition to an extensive orientation plan, administration identified the need to provide ongoing education for the Nurse Practitioners.

A Needs Assessment was developed that asked the Nurse Practitioners to evaluate the importance of specific competencies when providing acute oncology care and the current skill level that the current mid-level providers demonstrate. First, the Nurse Practitioners were asked to rate the importance of a variety of competencies using a 1-5 Likert scale with 1 = “Not Important” and 5 = “Extremely Important”. The broad topics for the competencies included: symptom management, oncologic emergencies, infectious disease, hematology, cardiovascular, Respiratory/ENT, Endocrine, Neurology, Genitourinary, Diagnostic testing including laboratory testing, surgical pathology, radiology, and other testing, pharmacology, and specific diseases. Under each broad topic, more specific competencies were identified.

The Nurse Practitioners were then asked to rate the knowledge level that the majority of the Nurse Practitioners demonstrated using a Likert scale with 1 = “Little or No Knowledge” and 5 = “Expert Knowledge”. Interestingly, the respondents found most competencies “Very Important” to their practice with an average score of 4.49 with symptom management of neutropenia and anemia ranked the highest at 4.91. On the other hand, they rated the current knowledge level of most competencies as “Adequate” with an average score of 2.9.

After analyzing the responses, it appeared that the highest learning needs are diagnostic testing including laboratory testing, radiologic testing, pulmonary function tests, and echocardiograms. In addition, staging and response to treatment for specific diseases were also identified as learning needs. Continuing educations programs with CE credit have been planned for the next year on these topics using advanced practice nurses, physicians, and other experts as presenters.

2031

STRATEGIES TO SUPPORT ONCOLOGY NURSES’ SCHOLARLY ACTIVITIES. Marsha Fonteyn, RN, PhD, OCN®, and Susan Bauer-Wu, DNSc, RN, Dana-Farber Cancer Institute, Boston, MA.

Developing and implementing strategies to promote and support nurses’ scholarly activities is an essential component of best practice that results in the wider dissemination of exemplars of best practice through presentations and publications, thus benefiting the entire nursing profession. As nurses at our NCI-designated Cancer Center became increasingly interested in submitting abstracts to conferences for poster and podium presentation and developing manuscripts to submit for publication, we, the nurses, scientists and staff in the nursing research center, recognized the need to devise creative ways to encourage and support these efforts.

To promote and facilitate nurses’ scholarly activities at our institution, we developed a repertoire of strategies that would allow us to provide support for these activities while still carrying out our research studies and the other important work of our nursing research center. We used principles of adult learning theory as the guiding framework for the strategies that we developed to support nursing scholarship.

Among the strategies developed and implemented were:

• Scheduling drop-in work sessions for nurses to obtain help developing abstracts, Power Point or poster presentations, or manuscripts

495
Providing a mentor writing program for nurses who had never previously published

Offering in-house peer review of abstracts prior to submission to a national conference, and critique and feedback of planned presentations or research projects

Establishing an annual Excellence in Writing award for published work

Instituting a Clinical Scholar Program to recognize nurses’ collaborative work with our research center

Since implementing these strategies, feedback from clinicians and nurse managers has been positive, nurses’ interest in scholarship has steadily increased, and the number of conference presentations has more than tripled, while the number of manuscripts submitted for publication has grown substantially.

Many of the strategies we describe in this presentation could be easily adapted for use with nurses in a variety of settings. Promoting and supporting nurses’ scholarly activities directly contributes to evidence-based practice through dissemination and thus has important implications for oncology nursing practice.

**2033**

**STAFF NURSE IMPLEMENTATION OF AN EVIDENCE-BASED PRACTICE STANDARD: CARING FOR ONCOLOGY PATIENTS WITH ALTERATION IN SKIN INTEGRITY RELATED TO INCONTINENCE.** Susan O’Donnell, RN, BSN, OCN®, Heather Robertson, RN, BSN, Cynthia Harrington, RN, BSN, Laura Brown, RN, BSN, OCN®, Ginette Audette, RN, BSN, and Aura Vasquez, RN, BSN, Massachusetts General Hospital, Boston, MA.

Patients with cancer are at an increased risk for developing skin breakdown. They are susceptible for perineal-rectal skin integrity impairment related to multiple factors including side effects of chemotherapy/radiation, altered nutritional status, immobility/weakness, and immunosuppression. Incontinence of urine and or stool can further complicate this problem. Perineal skin damage secondary to incontinence is painful, preventable, and prevalent, occurring in approximately 33% of hospitalized adults (Lyder, 1992). Nurses play a crucial role in assessing, treating, and preventing perineal skin breakdown related to incontinence.

After attending a two-day workshop on wound care, a work group on a hematology/oncology unit was created to identify common skin care problems in our patient population. Altered perineal skin integrity related to incontinence was the chosen issue. An extensive review of evidence-based literature was completed examining the current protocols in use for the management of perineal-rectal skin alterations. Although there is a significant amount of literature focusing on skin maintenance of the medical-surgical patient population, there remains a paucity of research focusing on skin care of incontinent oncology patients.

Utilizing available information, a skin care initiative was started to create a perineal skin care protocol on the unit. A focus was placed on cleaning, assessing, protecting, and treating the affected skin in both patients with a breakdown or those we felt were at risk for future complications. A staff survey was conducted to evaluate current standards for skin care on the unit when caring for a patient with incontinence. This survey collected information on current practices of cleaning, assessing, protecting, and treating the skin of incontinent patients in an oncology setting.

The survey results will be analyzed and evidence based guidelines will be developed. This work is ongoing. A series of staff education programs will be conducted and members of the unit based wound care work group will serve as consultants/resources in planning care. The wound care work group will evaluate this initiative by conducting a survey, auditing patient records, and observing nursing practice.

The goal of the wound care workgroup is to implement evidence based practices for oncology patients with skin care alterations related to incontinence.

**2034**

**A PILOT STUDY TO DETERMINE NUTRITIONAL NEEDS OF AMBULATORY CHEMOTHERAPY PATIENTS.** Louise Goldstein, RN, OCN®, CHPN, Duke University Hospital, Durham, NC.

Research has demonstrated a connection between nutrition and health. People with cancer, undergoing treatment, experience weight loss and poor nutritional status, which can have a detrimental effect on the response to cancer treatment and patients’ quality of life. The outpatient oncology infusion clinic currently does not receive any nutritional support from a dietician. The RN is the only resource for nutritional guidance.

The purpose of this project was to determine how many patients receiving chemotherapy or combination therapy needed to be evaluated and supported by a dietician. The goal was to demonstrate the need for a paid position for a dietician in this outpatient treatment area.

The Scored Patient-Generated Subjective Global Assessment (PG-SGA) was selected as the patient assessment tool. This tool was chosen because it has multiple levels of nutritional triage recommendations and established reliability and validity. A demographic tool was used to collect data on type of cancer, if receiving single or combination therapies, what agents were being used, and the frequency of treatments. Nurses used the PG-SGA and demographic tool to collect information on a random sample of 90 patients.

The assessment tools were completed and entered into an Access database. Of the 90 patients surveyed, it was determined that 72% of those patient receiving chemotherapy alone and 93% of patients receiving combination therapy required dietitian evaluation and support based on the triage guidelines. Of the cancer disease sites reviewed, breast, gastrointestinal, head & neck and gynecological cancers predominantly required dietitian intervention.

Based on the above information, presentations have been made at both the department and service line level stressing the need for nutritional support for this vulnerable population. The data has also been shared with the Director of Nutrition Services for the hospital, who is benchmarking with other programs. The need for this new position has been established and accepted. The position is currently being worked into the next fiscal budget. This is an example of how nurses can use clinical data to advocate for improved patient care.

**2038**

**ONE PRACTITIONER’S EXPERIENCE WITH COUNSELING AND TESTING WOMEN AT RISK FOR HEREDITARY BREAST AND OVARIAN CANCER SYNDROME.** Tracey Tatum, RN, MS, FNP, OCN®, Thomas Johns Cancer Center at CJW Medical Center, Richmond, VA.

The Oncology Nursing Society and American Society of Clinical Oncology have identified that genetic testing for Hereditary Breast and Ovarian Cancer Syndrome (HBOCS) is not appropriate for screening of the general population, but is an important tool for cancer prevention and early detection in specific groups. Important characteristics that have been identified include: breast cancer < 50 years, bilateral breast cancer, male breast cancer, Ashkenazi Jewish ancestry, and ovarian cancer at any age. Therefore, it is important to obtain a thorough medical and family history to identify appropriate candidates.

The purpose of this review was to evaluate my practice and the patients that proceeded to genetic testing for HBOCS. This review
included: my patients’ hereditary characteristics, risk factors of patients tested, testing results, medical management advised and patient’s medical treatment decisions.

A retrospective chart review was conducted to assess patients referred for genetics services, who received pre and post-test counseling and BRACA Analysis testing for HBOCS. Also, outcomes data on patients testing positive for a deleterious BRCA mutation was obtained.

Out of the seventy-nine patients evaluated, 15% tested positive for a deleterious mutation. Two or more risk factors for HBOCS were identified in 65% of these patients. Additionally, eighty-four percent of patients had breast cancer before the age of fifty diagnosed in themselves and/or a family member.

The overwhelming majority of patients referred to me had a diagnosis of either breast or ovarian cancer and were referred by oncology providers. These test results were utilized to make medical decisions to reduce the risk of recurrence or to prevent new diagnoses in patients and their family members. Optimally, to improve prevention and early detection of hereditary cancer, primary care providers and gynecologists need to be targeted. As the U.S. Surgeon General has advised, a review of all patients’ family histories should be obtained. Thus, indicators of risk for HBOCS could be identified. Then, changes to medical plans to reduce risks of HBOCS associated diseases could occur before cancer is diagnosed.

2039
QUESTION OF THE DAY: AN EDUCATIONAL INTERVENTION TO ASSIST IN IMPROVING SPECIALTY KNOWLEDGE ASSIMILATION BY NOVICE NURSES. DeWayne Gallenberg, RN, MS, OCN®, Mayo Clinic, Rochester, MN.

The complexity of care on an acute care inpatient unit at a tertiary referral teaching hospital is frequently intimidating to the novice nurse. Competing time pressures of providing care while trying to continue to expand their knowledge base has been cited by novice nurses as a factor frequently associated with dissatisfaction and decisions to leave the bedside. This is further complicated by the rapid pace of change in oncology care as new medications and treatment regimens are discovered or evolve.

This project involves a “just in time” educational intervention on a daily basis to assist the unit team in learning new information or reinforcing previously discussed concepts on a hematology unit at a large midwestern teaching hospital.

A Masters-prepared RN on a daily basis receives report on all patients in the area, and constructs and delivers a one to five minute inservice to the team present at that report. The questions addressed are compiled, and on a weekly basis distributed via an email distribution list to interested nurses within the organization at large on a voluntary basis. Current research topics are able to be included because the project coordinator is a member of the medical specialty research committee.

Over half of the inpatient hematologic/oncology/BMT nursing staff at the organization across multiple nursing units have voluntarily subscribed to the electronic distribution list.

With the increasing pace of change in the scientific basis of oncology nursing practice and the improved availability of electronic communications platforms, novel methods of information distribution may assist in keeping oncology nurses informed about cutting edge topics.

2041
ASSESING THE SEXUAL HEALTH NEEDS OF RECIPIENTS OF BLOOD CELL OR BONE MARROW TRANSPLANTATION. Reanne Booker, RN, BSCN, Tom Baker Cancer Center/Alberta Cancer Board, Calgary, Canada.

Sexuality is a broad term and is comprised of physical, psychological, social and functional components. It is an integral part of one’s quality of life and is significantly influenced by a cancer diagnosis and subsequent treatment. Several authors have identified that sexual dysfunction in post bone marrow transplant patients occurs in approximately 50% of patients. Further, close to 70% of female transplant survivors and 20% of male survivors reported ongoing sexual difficulties three years following treatment.

Patients are often hesitant to discuss sexual health concerns with their health care provider for a variety of reasons. Often, patients will wait for the health care professional to initiate discussion in the area.

Review of the literature revealed a lack of standardized instruments available for assessing sexual health in oncology patients. Very few existing tools were developed systematically with subsequent paucity of psychometric data available. Additionally, few of the tools are comprehensive. Most assess sexual function/dysfunction and not the broader concept of sexuality.

Objectives:
1. to field test a novel sexual health assessment guide in patients who have undergone blood cell/bone marrow transplant
2. to identify patients’ concerns about sexuality following blood cell/bone marrow transplant (autologous and allogeneic)
3. to identify areas of patient concern requiring further assessment and intervention

Following review of the literature and existing assessment tools, the Sexual Health Assessment Guide was developed. This tool uses the sexual response cycle as a conceptual framework. The tool was created with input from BMT psychologists. The tool incorporates physical, psychological and social/relational domains. A 6-point Likert scale assesses patients’ sexual health concerns and the related distress that these concerns impose.

This pilot study will employ a descriptive exploratory design to examine the sexual health needs of patients who have undergone hematopoietic stem cell transplantation.

In addition, psychometric properties of the sexual health assessment guide will be assessed as part of this pilot.

No findings available at this time.

2042
WEARING FACE MASKS FOR THE NEUTROPENIC POPULATION: WHAT IS THE EVIDENCE? Elizabeth Sorensen, MSN, APRN, BC, UT M.D. Anderson Cancer Center, Houston, TX.

Community respiratory viruses are a potential cause of pneumonia and death among hematopoietic stem cell transplantation recipients and patients with hematologic malignancies. Oncology nurses commonly wear masks while in the presence of severe and prolonged neutropenic patients to protect the patient from any potential airborne infections. Currently, there are no evidence based guidelines to support this practice. Furthermore, there are many possible disadvantages to this practice including: social isolation of the patient, delayed response time by nurses, less frequent visits by the nurse, increased equipment requirements and cost, and finally, masks can impair communication from the nurse to the patient resulting in less effective interactions and teaching opportunities.

Currently, variability exits in mask type used, length of time used, and frequency of mask changing by the health care provider (HCP). This current practice is implemented in many health care facilities and little evidence exists to support or guide the practice. The purpose of this project is to identify and evaluate the evidence support-
ing the practice of mask wearing by the health care provider with patients who have severe and prolonged neutropenia and to outline guidelines regarding recommended populations, masks, wear times, and potential disadvantages of the practice.

An extensive search of the online databases CINAHL and PubMed was performed using the following search terms: masks, respiratory infections, nosocomial, and immunosuppressed. Institutional policies and procedures, the Oncology Nursing Society guidelines, and CDC guidelines were reviewed.

An evidence summary table was developed that describes populations studied, research designs, outcomes and relevant findings that may be applied to practice. A critical appraisal of the literature revealed that limited data were available on the topic due to old research, lack of research regarding the target population, and few randomized control trials.

The results from this evidence-based practice project will be presented with suggestions for further follow-up and investigation into the practice using randomized control trials in order to set practice guidelines.

### 2045 CONTINUOUS BLADDER IRRIGATION FOR ONCOLOGY PATIENTS: A PROPOSED PROTOCOL

Kris Johnson, RN, BSN, Kristen Thomas, RN, BSN, and Tracy Douglas, RN, BSN, MSN, Johns Hopkins Hospital, Baltimore, MD.

Hemorrhagic cystitis, inflammation of the bladder with hematuria, is a well recognized complication of bone marrow transplant resulting from infection or chemical insult to the bladder. Approximately 10% of hematologic stem cell transplant patients develop hemorrhagic cystitis. Nurses in the oncology center have treated hemorrhagic cystitis with continuous bladder irrigation (CBI) for 20 years. The urology service provides consultation on these cases, but nursing expertise is most utilized without a standard of care for CBI.

A standard CBI protocol would clarify nursing practice, increase nurse autonomy, clarify patient outcomes, and alleviate obstacles when educating new nurses on the management of CBI.

Based on past standard of care at our institution and other hematologic stem cell transplant centers, literature reviews and expert medical and nursing opinions from oncology and urology, we developed a protocol for medical oncology patients having intermittent, partial, or complete urinary obstructions, related to blood clots in the bladder; or requiring the administration of intravesicular medication. Parameters for nursing assessments are outlined and include; color of urine, presence of clots, patency of flow, leaking around catheter, bladder distention, intake and output comparison, flow rate needed to maintain desired outflow color and patency of drainage system, vital signs, pain, daily weight, date of last stool, and interpretation of laboratory tests (hematocrit, platelet count, bacteria, white blood cells, JC virus, adenosivirus, and BK virus). Nurses determine the frequency of assessments based on output color and system patency. Nurses have guidelines on interventions, which include, regulating infusion rate, flushing and irrigating the catheter, and holding the infusion. Detailed instructions for initiating, maintaining, and irrigating the system are included in the appendices. The protocol resides in the oncology center’s online interdisciplinary clinical practice protocol manual.

This protocol will be reviewed biannually through the Standards of Care Committee and evaluation of new nurses’ management of CBI. The Standards of Care Committee approved the protocol.

The protocol will standardize practice, improve patient outcomes, increase nurse autonomy, and improve the education of new nurses.

### 2047 APPLICATION OF LEAN PRINCIPLES POSITIVELY IMPACTS CLINICAL EFFICIENCY IN AN AMBULATORY CHEMOTHERAPY INFUSION SUITE

Ami Gaarde, RN, BSN, OCN®, Jane Uttech, RN, BSN, OCN®, Tina Devery, and Sarabdeep Singh, University of Iowa Hospitals and Clinics, Iowa City, IA.

The volume of patients treated in the ambulatory infusion center at a large Midwestern NCI designated Cancer Center has steadily increased over the past several years. The reasons for this include: more complicated chemotherapy regimens, an increase in those being done in the outpatient setting, and earlier patient discharges from the hospital needing continued supportive care.

A multidisciplinary team at this academic hospital determined it would be beneficial to apply Lean principles to the daily operations of the infusion suite in order to improve efficiency and patient and staff satisfaction. Lean principles include evaluating workflow and replacing weaknesses with value-added services while maximizing efficiency. Goals were to: reduce patient wait times, reduce overall length of stay, and increase staff efficiency.

The clinic work flow was studied during the 5-day event by directly observing systems of operation. Members of the team used the Value Stream Mapping tool. This tool outlines every step taken by the nursing staff. It empowers the team to question the value of each step in the work process. The team improved efficiency by incorporating ideas from staff directly involved in patient care practices. Many simple pertinent actions were taken to reorganize and optimize the healthcare delivery process. Examples include: creating a pod system to keep nurses consistently in one area of the suite, making both medication and patient supplies more easily accessible to all nursing staff, front loading of patient appointments, reformatting of the scheduling system, and establishing an automated paging system to alert staff when medication is available.

The event significantly enhanced clinical efficiency and satisfaction of patients and staff. It eliminated non-value added steps and reduced unessential hand-offs. This helped reduce patient wait time by 69 percent, and distance traveled by staff by over 80 percent.

The application of the Lean principles maximized efficiency without sacrificing optimal patient care. By implementing these business principles into the health care system, oncology nurses have a direct impact on the clinical efficiency of the infusion suite.

### 2048 RELATIONSHIP BETWEEN SPIRITUAL HEALTH AND DEPRESSION OF PATIENTS WITH HEMATOLOGICAL MALIGNANCIES

Sang Ok Chong, RN, MN, APN, Saint Mary’s Hospital Catholic University of Korea, Seoul, Korea; and Won-Hee Lee, Yonsei University, Seoul, Korea.

The spiritual health negatively relates the depression of Hematological Malignancies patients. Spiritual care for spiritual health will be required to considerably decline the depression which was well detected on Hematological Malignancies patients. Oncology nurse should manage the spiritual health so as to improve the life of Hematological Malignancies patients and the quality of the nursing.

This study was designed to identify the relationship between spiritual health and depression of the Hematological Malignancies patients in an isolated room. The results will be applied to develop the spiritual health care, to mitigate the depression, and to suggest importance of prevention, which exactly meet the requirements of Hematological Malignancies patients.

Under conceptual model suggested by Stallwood and Stoll, this study assumed that spiritual health is significantly related with depression of Hematological Malignancies patients.
The instrument of spiritual health is a Spiritual Health Inventory Scale (SHI) developed by Highfield and then modified by Lee. The depression was measured by SCL-90-R originated in Derogatis which was translated into Korean by Kim. T-test and ANOVA were calculated to examine the difference of the spiritual health and the depression for characters of demographic data, primary caregiver, faith and health treatment

1. The mean score for spiritual health of the Hematological Malignancies patients in the isolated room was 111.62 within range from 31 to 155. The score indicated that the patients perceived the state of spiritual health over moderate. The mean score of depression was 29.78 from 13 to 65. It indicated that they perceived the low level of depression below moderate.

2. ANOVA and t-test were performed to test the significant difference for the spiritual health and depression according to the characteristics of demographic data, primary caregiver, faith and health treatment. In spiritual health, it was the largest significant differences in the field of faith (F=19.65, p=0.000) among other fields. In depression, there were the considerably significant differences in the field of year (F=4.561, p=0.002) and spiritual state(F=4.843, p=0.004) among other fields.

3. Negative correlation between spiritual health and depression was perceived with the moderate level(r=-.681, p=.000).

FIGHTING THE FLU: A VACCINATION PROGRAM FOR HEALTHCARE WORKERS. Anita Reedy, RN, MSN, OCN®, Johns Hopkins Hospital, Baltimore, MD.

Healthcare workers can transmit influenza to patients even when they are asymptomatic. The CDC recommends vaccination of healthcare workers as a standard of care. Healthcare workers who receive flu vaccination are reported at only 35% – 45%. This number is not adequate to prevent transmission of flu.

Barriers to flu vaccination include concern that the vaccine will be ineffective, fear of developing flu from the vaccine and fear of needles. This NCI-designated Comprehensive Cancer Center piloted a program where 100% of the staff on each unit would either get the vaccine or actively decline it. It was believed that by actively approaching each individual, vaccinations would increase by greater than 45%. By increasing the numbers vaccinated, the risk of spreading influenza to immunocompromised patients would decrease.

The Nurse Manager on each unit identified a “champion”, a nurse who would promote influenza vaccination. The name of each staff member was entered onto an Excel spreadsheet and posted on the unit. Each staff member was approached by the champion, Clinical Nurse Specialist or Nurse Manager to assure they either received the vaccine or actively declined it, giving their reasons for declination. This assured that no staff member “fell through the cracks” and was missed by passive non participation. Data was collated and presented to staff, the cancer center’s administration and Hospital’s Epidemiology and Infection Control Committee (HEIC).

100% of the nursing staff on each unit was contacted to either receive or decline the vaccine. Rates for each of the 4 inpatient units were 73%, 84%, 72%, and 85% and 60% for the outpatient unit. RNs were more likely to be vaccinated than support staff. 106 other staff, including doctors, respiratory and physical/occupational therapists and social workers was also vaccinated. These vaccination numbers are significantly higher than those reported in the literature.

Influenza vaccination rates can be affected by programs where each staff member is approached for vaccination or declination. Reasons for declination can be used to educate staff with the goal of increasing future vaccination rates. This can result in the decrease of transmission of influenza to patients from infected healthcare workers.

UNDERSTANDING MUCOSA-ASSOCIATED LYMPHOID TISSUE (MALT) LYMPHOMA: HELICOBACTER PYLORI INFECTION AND BEYOND. Yazhen Zhong, RN, ANP, AOCNP, M.D. Anderson Cancer Center, Houston, TX.

Mucosa-associated lymphoid tissue (MALT) lymphoma is a distinct subtype of extranodal marginal zone B-cell non-Hodgkins lymphoma. The uniqueness of MALT lymphoma is that its growth is stimulated by chronic inflammatory process. Helicobacter pylori (Hp) infection is a well-known risk factor for gastric MALT lymphoma. More than half of the patients achieve lymphoma regression with eradication of Hp and that made this tumor a popular model of antigen-driven lymphomagenesis. Several infectious agents are reported to be related to non-gastric MALT lymphoma, and targeted new treatments have been studied. It is important that nurses are knowledgeable about the disease process and treatments so they can better educate patients and families about the malignancy.

The purpose of this presentation is to provide an overview of primary gastric and non-gastric MALT lymphoma.

The overview will include epidemiology, pathogenesis, diagnosis and staging, standard and novel treatments, and nursing role in management. MALT lymphoma arises at a variety of organs; however, the stomach is the most common involved organ. It accounts for more than 50% of stomach lymphoma and 90% of the patients are Hp positive. The clinical manifestations of gastric MALT lymphoma may be nonspecific with dyspepsia and epigastric pain. The patient with early stage disease usually has better response to H. pylori eradication treatment. The treatment for non-gastric MALT lymphoma is tailored to the disease site, stage, and characteristics. The choices are involved-field radiation for localized disease. Rituximab is as effective as chemotherapy but less toxic for disseminated disease. The patients do relapse regardless the disease stage. Frequent follow-ups are imperative to monitor the disease status.

Oncology nurses who view this presentation will gain a basic understanding of etiology and pathogenesis of MALT lymphoma; recognize early clinical presentations; discuss the unique treatments and the rationale of frequent follow-ups.

Since treatment for MALT lymphoma is mostly outpatient or at home, oncology nurses are in a vital position in educating patient of this unique malignancy, reinforcing the importance of treatment compliance and long-term follow-ups, and monitoring treatment side effects.

PRECAUTIONS, IMPLICATIONS AND CONTRAINDICATIONS: USING EVIDENCE TO ESTABLISH A NURSING PROTOCOL FOR A RECOMBINANT POXVIRUS (VACCINIA/FOWLPOX) BASED VACCINE PROGRAM. Robin Green, RN, BSN, MSN, OCN®, NYU Cancer Institute, New York, NY; Jessie Condon, RN, BSN, OCN®, Yale University School of Nursing, New Haven, CT; and Kathleen McCaffrey, RN, MSN, OCN®, and Zenona Lesko, RN, BSN, NYU Cancer Institute, New York, NY.

Vaccine therapy hypothesizes when a cancer patient is vaccinated with a primary vector and a tumor-specific antigen, the antigens will stimulate the patient’s immune system to recognize and attack the cancer cells, sparing healthy cells. To induce this immune response, the poxviruses are among the most commonly studied vectors. Vaccinia is considered the prototypical poxvirus. Vaccinia vaccine is a live virus and classified as a Biosafety Level 2 Agent by the Center for Disease Control. These agents are associated with human dis-
ease and present a potential hazard to people and the environment. Government (CDC and NCI) mandated regulations, as well as institutional concerns, challenged the oncology nurses in our facility to deliver optimal patient care while ensuring the “safety” of personnel, immunocompromised patient’s and the environment. This paper will describe the development and implementation of an evidence-based protocol integrating biosafety regulations with nursing expertise.

To develop an evidence-based nursing protocol that would define safe practice for personnel involved in the management of patients receiving recombinant poxvirus vaccines.

A multidisciplinary task force was formed and included Nursing, Oncology, Infectious Disease, Environmental Services, Employee Health, and Pharmacy. A literature review, including Medline databases and NCI/CDC websites was conducted. An evidence-based protocol was synthesized from a critique of the literature, recommendations from the task force and the ECOG protocol. A patient education tool was written. Education was provided for all personnel involved in caring for protocol patients. To ensure compliance a competency based checklist was developed for the nursing staff.

We opened the vaccinia trial the fall of 2006. The total accrual will be 10 patients. Currently, 2 patients are being screened and 3 patients are enrolled. All enrolled patients received the vaccinia injection without incident. The coordinated efforts of all departments provided for streamlined treatment days.

This clinical trial with its myriad of biosafety precautions, patient care implications and protocol contraindications could intimidate the most experienced researcher. Oncology nurses play a pivotal role in transforming “cutting-edge” science into clinical practice. Following the evidence was an invaluable strategy in implementing our nursing protocol.

2060

COACHING FOR SUCCESS: A MULTIDISCIPLINARY APPROACH TO PREPARING A PATIENT FOR HEAD AND NECK SURGERY. Linda Schiech, RN, MSN, AOCN®, Fox Chase Cancer Center, Philadelphia, PA.

Learning that you have a cancer diagnosis can be devastating to any person. Head and neck (H&N) cancer has the unique situation of existing on the area of the body that is immediately visually seen by others. A majority of H&N cancers are treated with curative intent by surgery thus creating physical and psychosocial impairments.

A speech therapist, social worker, dietitian and clinical nurse specialist comprise a portion of the interdisciplinary team that meets with a patient and significant others before they undergo any surgical procedure in order to facilitate their post operative course.

Upon receiving orders from a physician on the team, this smaller group meets with the patient and significant others to review in detail what will occur during the patient’s hospitalization. Expectations of what to anticipate from the clinical staff including the services that will be provided by each member during and after the hospitalization are explained. Pictures are often used to illustrate information and expected changes in anatomy. The patient is provided a packet of information regarding general dietary hints for softer more palatable diets, general mouth exercises they could start to learn preoperatively, a booklet about their specific type of H&N cancer and how it may be treated, and information concerning a support group provided by the institution. Finally, the patient is educated regarding expectations we have for them throughout the hospitalization such as ambulation and frequent mouth care. Time is provided for questions to be answered and contact information is given to the patient.

The goal of this effort is to have the patient meet and feel comfortable with other members of the team who will be helping them in their recovery. We also hope that by making the patient aware of their hospitalization course, what’s expected of them, and education about the changes in anatomy, function and rehabilitation needs that they may encounter following their procedure will speed recovery.

Greater knowledge for patients prior to a complicated procedure which can cause visual and possible functional changes to their body can assist in increasing their comfort level in dealing with these alterations.

2062

THE DEVELOPMENT AND IMPLEMENTATION OF A COMPREHENSIVE BREAST CANCER TREATMENT PROGRAM AT A COMMUNITY BASED CANCER CENTER. Dana Inzio, RN, APRN, AOCN®, Sandy Balentine, RN, OCN®, and Nancy Libera, RN, MA, Valley Hospital, Paramus, NJ; and Thomas Ahlborn, MD, private practice, Glen Rock, NJ.

Facing a diagnosis of breast cancer can be overwhelming. It is estimated that 212,920 women were diagnosed with breast cancer in 2006. Research supports efforts to identify, understand and address the needs of women who are newly diagnosed or have new abnormal findings in order to facilitate adjustment to their illness. Women newly diagnosed with breast cancer suffer physically and psychologically. This stress has been found to influence recovery from treatment, quality of life and long-term survival outcomes. It is an important role for the oncology nurse to assess the needs of these women soon after diagnosis and refer them to the appropriate resources to positively impact their overall well-being.

The purpose of the Comprehensive Breast Cancer Treatment Program is (a) to integrate services currently available for both women with newly diagnosed breast cancer or a new abnormal finding, (b) to utilize a multidisciplinary team to make standardized treatment decisions, (c) to provide a patient navigator to streamline the treatment process for women with breast cancer.

The program was developed by a multidisciplinary team of breast cancer specialists who developed guidelines based on national standards for the initial diagnosis and work-up for breast cancer. At community based centers, physicians practice in private offices which presents a challenge in delivering multidisciplinary care. This program is a virtual center coordinated by an oncology nurse practitioner who is responsible for being the connection among the multidisciplinary team members. Women identified to be at high risk or newly diagnosed are referred directly to the coordinator who serves as a resource and patient navigator providing education, referrals to appropriate services, support, and follow-up throughout the treatment process.

The goal of this program is to provide a comprehensive, multidisciplinary approach to treatment planning within a community based center for women with breast cancer. The nurse coordinator will evaluate patient satisfaction and timeliness of initial treatment on a regular basis for quality assurance and improvement.

The nurse coordinator’s experience and expertise guides the patient and the team toward efficient and effective care, resulting in positive outcomes overall.

2063

THE ETHICAL CONSIDERATIONS OF MANDATORY INFLUENZA VACCINATION FOR ONCOLOGY HEALTH CARE WORKERS. Suzanne Cowperthwaite, RN, BSN, Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins, Baltimore, MD.

Influenza causes 40,000 deaths in the United States each year. Immunocompromised patients with cancer are at significant risk. Health Care Workers (HCWs) may be exposed to influenza and
Room and table assignments were made to pair staff that normally
their role.
access of information while enhancing their own ability to grow in
Kanters Structural Theory of Organizational Behavior was used as a
tions and identify the unique contributions of each staff member.
effectiveness and cohesion without success. The retreat was to be
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HCWs should not be terminated for non-compliance. Current HCWs
can be provided encouragement and a strong educational campaign
promoting vaccination. Those refusing vaccination should be re-
quired to give active declination, ensuring that their decision is not
one of convenience, apathy, or oversight. Newly hired HCWs can be
advised that yearly influenza vaccination is mandatory. HCOs must
allow declination for employees with religious objections or medical
contraindications. HCOs requiring mandatory influenza vaccination
have a duty to inform and educate HCWs, and to provide free, read-
ily available vaccine.

2064
STAFF RETREAT: A JOURNEY TO TEAM BUILDING. Nancy Lambert,
RN, MSN, OCN®, and Nancy Steward, MSN, RN, OCN®, CRNI, Chris-
tiana Care Health System, Newark, DE.

Teamwork and leadership are important components of an effec-
tive department. The Cancer Care Management Department at the Helen F. Graham Cancer Center is comprised of staff housed in dif-
f erent locations. As the department has grown, it is sometimes dif-
ficult for staff to get to know each other. As a result, cohesiveness
is a challenge. Two Care Coordinators investigated the possibility of
having an off site retreat to work on team building and presented it
to management.

In the past, numerous attempts have been made to improve work
effectiveness and cohesion without success. The retreat was to be
used to strengthen, re-energize our team, clarify roles and expecta-
tions and identify the unique contributions of each staff member.
Kanters Structural Theory of Organizational Behavior was used as a
model as a bases for the staff to meet the department goals through
access of information while enhancing their own ability to grow in
their role.

Our first off site retreat was held at Wapiti in Northeast, Maryland.
The staff was treated to dinner and an evening of fun and laughter.
Room and table assignments were made to pair staff that normally
does not have any interaction. A full day was spent on team building
provided by an expert in staff relations. Topics such as understand-
ing team dynamics, understanding your personal behavior style and
how it affects your ability to communicate with others and learning
how to created safe environment where candid communications are
used and accepted.

Surveys post retreat showed that participants found this retreat
beneficial in helping develop teamwork and leadership skills. The
comparison of the 2004 and 2006 Gallup survey demonstrated that
the staff had an overall 25% increase in satisfaction with their job
role, department and department director.

As our department continues to undergo changes, it is important to
gather our staff in a safe environment to encourage communication.
Our nursing staff depends on the support staff to help our oncology
patients through the continuum of their care. Without communica-
tion we are not able to work effectively or efficiently.

2066
FANCONI’S ANEMIA IN PATIENTS WITH HEAD AND NECK SQUAMOUS
CELL CARCINOMA: CHALLENGES FOR PATIENTS, CHALLENGES FOR
TREATMENT. Marian Richardson, RN, MSN, AOCN®, and Andrea Cox,
RN, BSN, Johns Hopkins Hospital, Baltimore, MD.

Fanconi’s Anemia (FA), a rare autosomal recessive genetic disor-
der, is associated with chromosomal instability and abnormal DNA
repair. This predisposes patients to congenital recessive genetic disor-
ders, bone marrow failure, human papillomavirus, and development of solid
tumors, especially squamous cell carcinoma of the head and neck
(HNSCC), esophagus, anus, and vulva. The risk of HNSCC in FA
patients is approximately 500 fold higher than the general popula-
tion. Because of flawed cellular repair, standard cancer therapies
need modification. Treatment considerations include the use of
targeted therapies versus chemotherapy and conventional radiation
treatment versus Intensity Modulated Radiation Therapy (IMRT). Nurses
are crucial in identifying patients with FA and aggressively
managing their treatment related toxicities.

This presentation provides an overview of Fanconi’s Anemia and
a description of two case studies demonstrating the challenges of
managing these complex patients.

Case Study I: A 31 year old woman with known FA presented
status post multiple surgical procedures for oropharyngeal cancers
and status post surgical excision of left retropharyngeal space for
retropharyngeal recurrence. Conventional radiation treatment to 63
Gy to the left neck and supraclavicular area was administered with 2
planned treatment breaks. Nursing interventions included multidis-
ciplinary coordination, daily assessment, management of treatment
toxicities and psychological support.

Case II: A 30 year old male presented with SCC of the tonsil. His
treatment plan consisted of concurrent chemotherapy (Platinum and
targeted therapy on protocol) and an IMRT based radiation plan.
Early treatment toxicities including oral mucositis, neutropenia, and
sepsis raised suspicion of a DNA fragility syndrome. Testing proved
positive for FA. Treatment plan was amended to single agent Ce-
tuximab and conventional radiation treatment. Nursing interventions
included aggressive management of odynophagia, mucositis, skin
reaction, cachexia and interdisciplinary coordination.

A review of FA case studies initiated a nursing inservice on treat-
ment considerations in this patient population.

Oncology nurses must be aware of treatment implications for FA
patients. Patients who develop early severe toxicities to treatment
should be tested for DNA fragility syndromes. Treatment plans
should be amended, treatment breaks considered, and prolonged re-
coverey time anticipated. FA patients should have early and regular
screening for HNSCC.
2067
FORMBUILDER: A TOOL FOR PROMOTING DATA SHARING AND REUSE WITHIN THE CANCER COMMUNITY. Stephanie Whitley, RN, BSN, TerpSys, Rockville, MD; and Dianne M. Reeves, RN, MSN, National Cancer Institute, Rockville, MD.

Data collection in clinical trials management systems relies on the use of Case Report Forms (CRFs) to capture protocol data and sponsor requirements. The time involved in creating new CRFs for a study is quite labor intensive, as they are typically recreated every time a new study is built. The result is that data standards are not being consistently used, and question reuse is not enforced. This can lead to semantic discord, or the collection of data that is slightly different across protocols. As a result, data is not able to be aggregated across studies.

The National Cancer Institute Center for Bioinformatics (NCICB) Cancer Data Standards Repository (caDSR) FormBuilder tool was designed to support data sharing and reuse within the cancer community and its collaborators. The caDSR houses study metadata, or questions, which are used based on the needs of a particular community or organization. These standard questions, or sets of metadata, are important to any application supporting electronic data sharing since they provide structure to the data being collected.

FormBuilder allows for the extraction of Common Data Elements (CDEs), or the questions being asked on a CRF, and allows them to be displayed and stored in a meaningful and reusable format. A CDE is a single variable uniquely defined using vocabulary that is well defined and static; it will remain stable over time. The metadata, or ‘data about data,’ that compose CDEs explicitly details a single variable and its attributes that are captured electronically to allow exchanged data to be interpreted correctly. The protocol data that is being collected are the answers to the CDEs on the CRFs.

FormBuilder allows for the creation and maintenance of forms and templates that use the CDEs maintained in the caDSR. Data elements describing clinical information can be collected, customized, and shared among the user community. FormBuilder was built with the specific purpose of enabling sharing and reuse of caDSR content.

The CDE Browser and FormBuilder tools are open source and publicly available at: http://cedebrowser.nci.nih.gov.

2069
NURSES AS INSTRUMENTS FOR CHANGE: INCORPORATING THE ELDERLY IN CLINICAL TRIALS SAFETY. Donna Gerber, PhD, RN, AOCN®, M.D. Anderson Cancer Center, Houston, TX.

The elderly (those 75 and older) suffer a great burden from cancer. The baby-boomer generation has enjoyed many new developments in medical science and their expectations will continue to increase and become more apparent as their need for medical intervention increases. It is known that as a person ages the body’s systems do not function as efficiently. New targeted-therapies and combination therapies are being investigated daily in clinical trials.

A concern identified by nurses was that often there was an age limit for older adults or they were excluded secondary to co-morbidities from many Phase I/II trials. Only when approved by the FDA do these new drugs or combinations become available to the elderly. When oncologists prescribe these new treatments, they have little data on how the elderly will metabolize and tolerate these treatments with their decreasing bodily functions. Nurses identified this as a safety concern for future patients once FDA approval occurred. Also, research nurses were frustrated in excluding the elderly with good performance status from clinical trials.

Within our institution some nurses started asking the principle investigators (PIs) for an override to include older patients. Also, nurse reviewers for new protocols started to question upper age limits and this issue required a satisfactory response by the PI before the protocol preceded to the Institutional Review Board (IRB). The IRB members started to notice these comments in the reviews and also started questioning age limits. Slowly over time changes have been seen in new clinical trials.

The most dramatic change seen in new clinical trials presented to the IRB over the last year is that most do not have an upper age limit. Also, elderly or patients above 75 years of age are done in a separate cohort (group) in some Phase I/II trials using the same dose but only after at least 3 patients under 75 have safely completed that dosing cohort. As pharmokinetics and/or pharmodynamics are usually involved this is beneficial enabling comparison of toxicities between populations.

This demonstrates that nursing can be an instrument for a change in philosophy and safely incorporate elderly in clinical trials.

2070
A PILOT STUDY TO ASSESS PATIENTS’ COMFORT LEVEL WHILE UNDERGOING INTRAPERITONEAL CHEMOTHERAPY WITH THE USE OF WARMING INTERVENTIONS. Darlene Whyte, RN, BN, Tom Baker Cancer Center, Calgary, Canada.

Ovarian epithelial carcinoma causes more deaths than any other cancer of the female reproductive system. Women with advanced ovarian cancer who are optimally debulked have the opportunity to significantly increase survival if their chemotherapy is administered via the intraperitoneal (IP) route as compared to the intravenous (IV) route after debulking surgery. An extensive literature search could not provide evidence to suggest that specific warming interventions improve the patients comfort while undergoing intraperitoneal chemotherapy. Patient comfort levels could adversely affect the number of chemotherapy cycle that the patient can tolerate and therefore, could affect patient outcomes.

The objective of this study is to explore warming interventions during intraperitoneal chemotherapy and examine the impact on patient comfort. Oncology nurses have an obligation to provide high quality, safe, compassionate care in accordance with best practice/evidence-based guidelines. This obligation includes optimizing quality of life and promoting the best possible patient experience. Oncology nurses have the opportunity to positively influence patients’ experiences and mitigate the potential adverse side effects/experiences that patients may encounter. Providing the most comfortable method of IP treatment may influence the number of cycles of chemotherapy the patient chooses to complete. Exploring the use of select nursing interventions while patients are undergoing intraperitoneal chemotherapy will provide insight as to the patient experience as well as assess the efficacy of the aforementioned warming interventions.

Patients are selected for one of 3 arms. In Arm 1 the patient receives intraperitoneal chemotherapy warmed to body temperature. In Arm 2 the patient receives intraperitoneal chemotherapy at room temperature but will apply a heating pad to the abdomen. In Arm 3 the patient receives intraperitoneal chemotherapy at room temperature. The patient completes baseline European Organization for Treatment of Cancer Quality of Life C30 (EORTC QLQ-C30) and OV 28 (EORTC QLQ OV 28) forms prior to treatment and following each IP chemotherapy infusion. Descriptive statistics will be computed for all variables (including mean, standard deviation, median and range). T-tests will be used to assess differences between groups.

Research is in progress, no preliminary findings available.
The purpose of this project was to measure our patients’ satisfaction with the education provided to them during the clinical trial enrollment process. Positive satisfaction scores of those enrolled were recognized as measures of success.

A questionnaire was developed addressing patient education issues related to enrolling on a clinical trial. In addition, questions were asked about the education provided by specific research staff members and the courtesy of the research staff. The questionnaire was sent to all patients who signed an informed consent over a period of one year.

Fifty percent of all questionnaires were returned with 46% of the participants responding with a perfect score. Areas of strength identified were satisfaction with the explanation of the clinical trial process (treatments, schedules, tests). Areas for improvement including providing more information about potential side effects, risks and benefits. The best provider of information on the research team (physicians, research, chemotherapy RNs) was the research nurse. The top factor influencing study participation was how the physician presented the information as a treatment option.

The survey identified the need to improve the understandability of the medical terminology utilized in educating the participants. A list of terms and words used in informed consents were reevaluated for definitions at a sixth grade reading level. Also, in order for the patient to have time to make an educated decision, they are given the consent to take home. A follow up phone call is made prior to their return to answer any questions or concerns. We plan to reassess our progress after implementation of our recommendations.

### 2072

**A Longitudinal Study of Social Support, Psychological and Physical States among Japanese Women with Breast Cancer**

Reiko Makabe, RN, PhD, Fukushima Medical University, Fukushima Japan; and Tadashi Nomizu, MD, Hoshi General Hospital, Koriyama, Japan.

Few studies have conducted to investigate the relationships of social support and health outcomes among Japanese women with breast cancer.

The purpose of this study was to explore the relationship of social support, psychological and physical states among Japanese women with breast cancer, and to compare these variables before and after breast surgery.

House’s social support framework was used to determine the relationships of social support, psychological and physical states.

A convenience sample of 48 Japanese women with breast cancer participated in this study. Three instruments with established reliability and validity were used: the Japanese versions of the Interpersonal Relationship Inventory to measure support, reciprocity, and conflict, the General Health Questionnaire to measure psychological states, and the Physical States Form. Data were collected four times: before (Time I), three months (Time II), six months (Time III), one year (Time IV), and 18 months after breast surgery (Time V). Data analysis included Pearson’s correlations, and repeated-measures ANOVA.

Significant correlations were found between support and psychological states at Time II, Time IV, and Time V. Also, there were significant correlations between psychological and physical states at Time I, Time II, Time III, Time IV, and Time V. Repeated-measures ANOVA showed significant differences in support (F=5.70, p=0.01) between Time I (M=3.95) and Time III (M=3.65), between |Time I and Time IV (M=3.67) and between Time I and Time V (M=3.62), in reciprocity (F=3.83, p=0.003) between Time I (M=3.65) and Time III (M=3.36) and between Time I and Time V (M=3.41), in physical states (F=28.61, p<0.001) between Time I (M=1.18) and Time II (M=3.78), between Time I and Time III (M=3.42), between Time I and Time IV (M=3.20), and Time I and Time V (M=3.29). However, no significant differences were found in the variables of conflict or psychological states. The research study will be continued to investigate the relationships of the variables up to two years.

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Oral mucositis is a frequent complication of the high-dose chemotherapy and total body irradiation commonly used in hematopoietic stem cell transplantation. In patients undergoing hematopoietic stem cell transplantation, oral mucositis has a high infection and mortality rate. Therefore, its prevention and associated therapy are important. Management for oral mucositis is integral to the role of the oncology nurse.

In a previous study we showed bacterial numbers in the oral cavity decreased after a meal or gargling. We thus hypothesized that a reduction of oral mucositis may be induced by oral intake in patients who underwent allogeneic hematopoietic stem cell transplantation. The purpose of this study was to investigate retrospectively the relationship between oral intake and oral mucositis following allogeneic hematopoietic stem cell transplantation.

A retrospective comparison study is appropriate for this research.

Data for this study were taken from the medical records from April 2002 to January 2006 of 78 patients. Data concerning conditions of oral intake and oral mucositis during the period from beginning a transplant conditioning regimen to neutrophil engraftment were collected. Grades of oral mucositis were evaluated using NCI Common Terminology Criteria for Adverse Events (CTCAE) v3.0.

The relationships between the number of times of a meal was taken and the period when oral mucositis was observed, and between the quantity of the meal and the period when oral mucositis was observed revealed significant weak inverse correlations, respectively ($r=-0.298$ $p=0.014$, and $r=-0.336$ 0.0056). The relationship between the number of times of a meal was taken and the highest grade of oral mucositis also revealed a significant weak inverse correlation ($r=-0.238$ $p=0.0397$). After nadir, the highest grade of oral mucositis significantly rose ($p=0.0422$), and the period when patients could have an oral intake was significantly shortened ($p<0.0001$).

This study suggested that continuous oral intake during allogeneic hematopoietic stem cell transplantation may prevent severe oral mucositis. Gargling to prevent free radicals until nadir when secondary oral mucositis occurs along with continuous oral intake during all periods appear crucial for preventing severe oral mucositis.

2076 PROMOTING FAMILY INVOLVEMENT TO IMPROVE SAFETY: A PRESCRIPTION AND OVER THE COUNTER MEDICATION SAFETY INITIATIVE IN AN INTENSIVE AMBULATORY SETTING. Wendy Warrill, BSN, RN, and Gina Szymanski, MS, RN, Johns Hopkins Hospital, Baltimore, MD; and Oluwatoyin Abiodun, AS.

Medication reconciliation is a top priority for the Joint Commission on Accreditation of Healthcare Organizations and in our institution. Medication discrepancies between what is prescribed and what is actually taken are reported to be as high as 76%. Blood and marrow transplant (BMT) and Leukemia outpatient medication regimens are complex and often require numerous modifications leading to a higher risk for medication discrepancies and errors. Over the counter (OTC) medications are often overlooked by providers but can have a significant impact on patient outcomes in the setting of polypharmacy and in the aging cancer patient.

Oncology nurses in our NCI designated comprehensive cancer center’s intensive ambulatory clinic for leukemia and BMT patients identified correct self-administration of prescription and OTC medication management as a safety issue. We analyzed our patient medication self-administration practices and implemented a simple intervention that resulted in an increase in the collaboration and dialogue between the patient, caregivers and the nurse, and ultimately increased medication safety in the clinic.

Using a convenience sample, we gathered data from patients and their caregivers, regarding their knowledge and adherence to their prescription and OTC medication regimes. We examined the accuracy of our outpatient medication list and quantified how often the clinic nurse completed medication reconciliation with the patient/caregiver. After the initial data collection, patients received a medication bag to facilitate transport of medications to each clinic visit and act as a visual prompt to initiate accurate medication reconciliation and begin a dialogue with the patient/caregiver to improve any medication knowledge deficits.

A month after the intervention was instituted a second identical data collection was done to examine patient/caregiver knowledge and compliance with their medication regime.

The nurse and patient/caregiver team are in a unique collaborative relationship in the outpatient setting and play a key role in medication reconciliation. The patient and caregiver make significant contributions to the patient’s current history of medication administration practices, medication side effects and response to treatment. Formalized medication reconciliation protocols that include discussions with patient and caregiver improve the systems and self-management of medications, achieving improved safety outcomes for the patient.
process, the more likely the practice will be successful. Finally, our questionnaire showed that the more the doctors and nurses referred to the tool during the patient visit, the more likely the patients were to fill out the Patient Care Monitor in the future.

2079
ASSESSING PATIENT FLOW IN AN AMBULATORY ONCOLOGY SETTING. Shannon Phillips, MS, RN, AOCNS, James P. Wilmot Cancer Center, Rochester, NY.

The flow of patients through ambulatory areas is central to patient and staff satisfaction, as well as reimbursement issues related to room/chair turn around time. Patient flow involves a multidisciplinary group approach, with cooperation needed from nurses, providers, clinical technicians, secretarial staff, and patients.

The purpose of this project was to evaluate patient flow and quantify wait times in an outpatient cancer clinic and treatment center in Western New York.

Data were collected on 442 patient visits during 35 business days. A student unobtrusively recorded the time the patient was taken into the clinic room or treatment center, time the provider entered the room, and time the patient left the room. These data were compared to the appointment and arrival times recorded by the secretary. Data on drug preparation and barriers to being treated on time were obtained from pharmacy and nursing staff for patients who received medications.

Twenty-one percent of patients arrived late to their appointments. Delays were observed waiting in line to register and in phlebotomy because of no/unclear orders. The average waiting room time was 17.8 minutes (range 1-153) and 19.6 minutes in the exam room before the provider entered (range 1-127). Wait times were calculated for individual providers (range 7 - 43.4; SD=8.1). Ten percent of patients had both clinic and treatment appointments on the same day; 72% of those patients arrived late to their second appointment. The most common causes of treatment delay from a nursing perspective were: multiple demands on nursing time, IV access problems, lab values pending, and no orders for treatment. The most common pharmacy delays were for lack of order or signature on order.

The results of this project have important implications for practice change. Recommendations for improvement include: install self-service kiosks for registration; stress importance of arriving on time for appointments; and ensuring all provider orders are entered promptly and signed. Nursing assignments should allow for emergency/add-on patients; a delay in patients with same day visits; and equality in patient volume/complexity. The large standard deviation in wait times has implications for specific providers, including altering scheduling time for visits.

2082
DEVELOPMENT AND IMPLEMENTATION OF A CANCER REHABILITATION/WELLNESS PROGRAM AT A COMMUNITY CANCER CENTER. Jean Ellsworth-Wolk, RN, MS, AOCN®, Fairview Hospital, Cleveland, OH; and Susan Dunson, RN, BSN, OCN®, and Debra A. Pratt, MD, FACS, Cleveland Clinic Cancer Center at Fairview Hospital, Cleveland, OH.

Physical fitness, supportive nutrition and wellness promotion are at the forefront of cancer prevention, treatment and survivorship due to recent patient outcomes research. In addition, a landmark publication from the Institutes of Medicine on cancer survivorship (2005) and the 2006 American Cancer Society recommendations for physical activity and nutrition have provided data that supports the importance of these issues. In order to provide comprehensive oncology care, cancer programs must begin to incorporate these areas into their patient education, intervention and community outreach.

To achieve this goal in a Community Oncology Program that is part of a large hospital system, a multidisciplinary Cancer Rehabilitation/Wellness Program was developed and implemented with an Advanced Practice Nurse (Oncology Clinical Nurse Specialist) as the coordinator.

An evidenced based program was developed that incorporated and adapted aspects of cardiac rehabilitation, exercise physiology, diet control and complementary treatments utilizing existing hospital resources. The purpose of the program is to improve the quality of a patient’s life through promotion of wellness behaviors. The focus is on physical function and fitness, nutrition and mental health but includes all aspects of wellness. The process utilizes an individualized approach with the APN as the initiator and coordinator of each patient’s unique wellness plan. Priority is given to improving the fitness level and diet of each individual on a long term basis. This personal plan is then implemented by a multidisciplinary group of professionals including representatives from nursing, medicine, physical and occupational therapies, exercise physiology, social work and dietetics.

Key creative aspects of the program, beyond the unique implementation process, include funding, marketing and promotion, creating community partnerships and outcomes evaluation. Patient outcomes are being measured concurrently by detailed data collection and a research study focusing on women with early stage breast cancer. Future goals include incorporating complementary therapies and expanding to include more cancer survivorship issues.

Despite differences in resources each Cancer Center can and must find a way to develop systems to integrate the promotion of physical fitness nutrition and wellness issues into their existing services for oncology patients.

2083
UNDERSTANDING RESPONSE EVALUATION CRITERIA IN SOLID TUMORS (RECIST): A CLINICAL TRIAL NURSE’S PERSPECTIVE. Anthony DelaCruz, RN, OCN®, and Tracy Curley, RN, OCN®, MSKCC, New York, NY.

Determining objective tumor responses associated with the administration of new anticancer agents is crucial in evaluating the efficacy of a drug. RECIST (response evaluation criteria in solid tumors), is a widely employed method to assess changes in tumor size in response to treatment. This is of particular interest to the clinical trials nurse and for patients considering a clinical trial. Objective tumor responses determine whether the agent/regimen demonstrates sufficiently encouraging results to warrant further testing. It is essential that nurses understand RECIST so they may counsel patients and families and assist in the decision making process.

The need for more uniform reporting of a therapeutic response in clinical trials is essential. Understanding the guidelines, definitions, assumptions and purposes of tumor response criteria is a critical part of the role of the nurse involved in clinical trials and applicable to all oncology nursing practices. Standardized response criteria are critical for directing individual patient care, evaluating new therapies, and communicating risks to family and patients. RECIST allows for investigators to speak the same language when they are reporting study results. It enables the nurse to clearly and objectively discuss individual results with a patient.

This presentation will inform nurses of the eligibility, methods of measurements, and specific response criteria. Limitations to the current guidelines which have been identified in recent years will be discussed. Tools that may be used will be demonstrated.

RECIST guidelines may lead to more uniform reporting of outcomes of clinical trials and facilitate the way nurses communicate
treatment responses. Understanding these guidelines will also allow
the nurse to recognize problems with the current system given that
tumor cells may react differently to new drugs and new imaging
techniques allow more accurate measurements of tumor density.

This knowledge will empower nurses to objectively discuss treat-
ment effects with their peers, investigators, family members and
patients. Understanding RECIST will enable nurses to use standard
terminology when reporting treatment responses and aid in their
communication with patients.

2084
BRINGING A BEREAVEMENT PROGRAM BACK TO LIFE. Grace Mar-
shall, RN, OCN®, Karmanos Cancer Center, Detroit, MI.

Oncology nurses deal with multiple deaths, providing care for pa-
cients, as well as families/caregivers. After a patient death a nurse
is expected to continue working. Ineffective coping mechanisms
may be adopted leading to burnout and harmful behaviors. Assisting
nurses in dealing with death and processing of grief guards against
burnout, leading to better patient care. Interventions include attend-
ing funerals, holding alternative rituals, calling families, posting
photographs and/or sending cards.

On our BMT unit, nurses deal with both adult and pediatric deaths.
In the past, a structured bereavement program had been valued and
several nurses participated in sending sympathy cards initially, at 6
months and at one year. With the turn over of involved staff the proj-
ect dissolved. An original member, an RN with 23 years of oncol-
ogy experience returned to the BMT unit after a 2-year absence and
noticed that staff were struggling with grief issues. A proposal for
reinitiating the cards was brought to the unit Nurse Practice commit-
tee and unanimously accepted.

The Unit CNS gave a presentation on Nurses Grief, expanding
nurses’ knowledge about the concept and described bereavement
programs as one effective intervention. Bereavement cards, includ-
ing pediatric specific were purchased. The lead nurse initiated the
sympathy card and notified staff, enabling all to personally sign their
names and express condolences. With the past program one nurse
was responsible for cards each month, while currently the project
leader asks nurses closest to the family to choose and initiate a card.
In the past patients were missed if they didn’t expire on the BMT
unit, therefore a data manager provides the RN with a monthly pa-
tient expiration list. Patient photographs and cards are posted in the
nurses’ conference room and then placed in a unit scrapbook.

Previous participants voice gratitude for re-initiation of the pro-
gram, while nurses new to the experience provide positive feedback.
Bereaved families convey verbal and written appreciation for the
thoughtful gesture.

Bereavement programs allow oncology nurses ways to express and
resolve their grief and can be tailored to meet individual staff/unit
needs.

2085
OUTCOMES OF A CERVICAL CANcer AWARENESS PROJECT. Barb
Henry, RN, APRN, MSN, University of Cincinnati Central Clinic & Psy-
cho-Oncology Consultants, Cincinnati, OH.

The National Oncology Nursing Society has identified the impor-
tance of collaboration between ONS and the Black Nurses Asso-
ciation in an effort to create cervical cancer awareness, prevention,
and educational programs. The purpose of this project was to help
women take an active role in their health care and learn about cervi-
cal cancer prevention.

Resources were collected from the Gynecological Cancer Founda-
tion, Women’s Cancer Network, the American Cancer Society, and
local Cervical Cancer nursing professionals. Seven different presen-
tations were completed by CTC-ONS & BGNAC members in a vari-
ety of community settings. At each of these presentations, the nurses
delivered the educational materials in a fashion that best suited the
needs of the women involved.

As a result of these nursing interventions, many women who had
not had pelvic exams or pap smears in the past year pledged to make
appointments. Approximately 1,000 handouts were distributed at all
the presentations. Word was spread by these thousand or more wom-
en to other women promoting annual cervical cancer screening to
prevent cervical cancer. The nurses involved in the project described
a positive experience of educating women at risk and collaborating
with colleagues from a diverse professional organization.

Oncology nurses could replicate this or similar projects to provide
cancer prevention education to at risk communities, and enjoy di-
verse professionally-rewarding experiences.

2088
HELPING CANCER PATIENTS AND THEIR CAREGIVERS PREPARE FOR
RADIATION THERAPY: A MULTIDISCIPLINARY TEAM APPROACH TO
PATIENT EDUCATION. Kathleen MacDonald, RN, BSN, OCN®, Cynthia
Briola, RN, BS, OCN®, Carole Sweeney, RN, MSN, AOCN®, Carolyn
Weaver, RN, MSN, AOCN®, Susan Haney, LCSW, and Anjali Albanese,
LSW, Fox Chase Cancer Center, Philadelphia, PA.

It is well documented that patients experience anxiety and fear
related to radiation treatment and continually seek out informa-
tion related to their treatment. The radiation oncology nurse plays
an important role in preparing the patient and their caregivers for
radiation therapy. At our institution, staff, as well as patients and
caregivers, recognized the need to expand on the teaching provided
during the initial clinic visit. Therefore, the multidisciplinary team
developed a class to educate patients and caregivers about radiation
therapy.

The purposes of the “Preparing for Radiation Therapy” class are
to standardize the education provided and better prepare patients
and their caregivers for radiation therapy. Orem’s Self Care Model
provided the framework for the class, which focuses on promot-
ing self care activities during treatment in order to achieve better
outcomes.

Initially a needs assessment was completed by patients undergoing
radiation therapy. The results provided useful information related
to essential content to include, as well as logistics such as when to
offer the class. Content was ultimately reviewed and approved by
radiation oncologists, radiation oncology nurses, social workers, and
the patient education coordinator. Participants are taught about how
radiation works, how to lessen and manage potential physical and
emotional effects, and how to access available resources. The class
is taught by a radiation oncology nurse and a social worker and is
offered every 2 weeks at varying days and times.

At the end of each class evaluation forms are distributed to each
participant and caregiver. Thus far responses have been overwhel-
mingly positive as attendees have strongly agreed or agreed that
the information was valuable to them and better prepared them for treat-
ment. They all stated that they would recommend this class to others
about to start treatment. Based on suggestions and frequently asked
questions during the class, content will be added.

Radiation oncology nurses can better prepare patients and their
caregivers for radiation treatment through educational programs such
as the “Preparing for Radiation Therapy” class. Educating patients
outside of the initial clinic visit and prior to treatment can improve
patient outcomes by decreasing anxiety and hopefully improving
management of side effects.
Breast cancer can lead to physical, cognitive and affective distress. Positive benefits of expressive writing have been reported in other groups. Expressive writing has been studied to a limited degree in breast cancer patients; questions remain about the specific writing type that is most beneficial to this group, and the impact expressive writing has on physical and psychological distress.

The purpose of this study was (a) to determine whether reported benefits of expressive writing (i.e., improved psychological well-being and physical health related outcomes) are seen in newly diagnosed breast cancer patients and (b) to compare specific writing assignments. It was proposed that women who do expressive writing about breast cancer or about critical events in their lives will have less depression and anxiety and improved overall physical health as reflected by improved scores on: (a) Beck Depression Inventory (BDI-II) (b) State Trait Anxiety Inventory (STAI) and (c) Functional Assessment of Cancer Therapy-Breast cancer version (FACT-B).

Reflection/reframing and caring consciousness provide the theoretical framework to explore the events that occur when a person experiences a life-altering experience and uses expressive writing.

This study was a longitudinal randomized controlled trial using a pretest-posttest control group design. Participants were randomized into four groups: three writing groups and one control group. Instruments were administered at entry (T1), one month post (T2), and six months post (T3). One hundred seventeen newly diagnosed breast cancer women were recruited, and 68 of these completed the writing assignments and tests. MANCOVA, ANOVA, and t-tests were used to evaluate differences among groups.

Writing about breast cancer as the traumatic event was statistically significant for improvement in functional quality of life and depression. Simply writing about exercise, diet, sleep, and medications related to the breast cancer experience was also beneficial. The group that wrote about a self-selected worst traumatic event was only significant for anxiety reduction. All three writing groups reported a statistically significant decreased use of antidepressants. Expressive writing was found to be a useful mechanism to deal with breast cancer and had an effect on physical functioning, depression and anxiety.
MEETING BUDGETED HOURS PER PATIENT DAY (HPPD) WITHOUT COMPROMISING PATIENT AND STAFF SATISFACTION ON AN INPATIENT ONCOLOGY UNIT. Susan Di Re, RN, Northwest Community Healthcare, Arlington Heights, IL.

Meeting the hours per patient day (HPPD) budget is every nursing manager’s dilemma. This is especially true for the oncology unit manager in the community hospital, where census fluctuates, FTE’s are low, and the budget is limited. Nurse-patient ratios and patient acuities are high. The budgeted HPPD for the inpatient oncology unit at Northwest Community Healthcare (NCH), challenged the director with improving patient care and satisfaction, while simultaneously not compromising staff satisfaction.

After reviewing nursing management and business literature, a proposal was developed for disseminating a majority of the responsibilities of the “Charge Nurse” role to the staff nurses themselves. This approach holds the staff nurse accountable for direct patient care and self-management as a stake-holder of the oncology unit. Patient care outcomes have improved and corporate HPPD goals are close to being met while enhancing the nurse’s job satisfaction.

The unit based shared governance council for Customer Satisfaction was key in implementing the changes. The actions included changing the “Charge” nurse role to a rotating “Shift Leader” role. The Shift Leader assumes care of three less complex patients, while also having responsibility to assign beds and oversee staffing for the next shift. All staff were educated on the HPPD and budget process, as well as communication, delegation and decision-making for the Shift Leader role.

Staff RN’s self assign 3-4 patients, taking into consideration patient acuity and continuity. Patient care technician’s (PCT’s) were given more responsibility and charged with fall prevention, prevention of skin breakdown and quicker response to answering call lights. A nursing satisfaction survey was conducted prior to, at three months and 6 months to measure staff satisfaction following implementation of the plan. HPPD was monitored monthly.

These innovative approaches to the daily operations of our oncology unit empowered the staff nurse to critically-think, delegate fairly, and provide safe, cost-effective quality care to their oncology patients. Any small, dedicated oncology unit could benefit by considering this plan to meet corporate, unit, patient and staff goals.

CREATING A LEARNING ENVIRONMENT FOR NURSING SCHOOL FACULTY AND STUDENTS IN A COMPREHENSIVE CANCER CENTER WHEN ALL THEY WANT IS MED-SURG. Elizabeth Owens, RN, MS, Roswell Park Cancer Institute, Buffalo, NY.

In our community, impending changes will result in downsizing of community hospitals and loss of clinical sites for nursing students. This along with minimal exposure to oncology in nursing curricula requires creativity and development of relationships between schools of nursing and hospital based nursing education to provide students with a valuable clinical rotation at a Comprehensive Cancer Center (CCC).

Roswell Park Cancer Institute has long-term relationships with local schools of nursing, but has had limited success in attracting rotations from local Baccalaureate (BSN) programs. Faculty identify that they only want medical surgical rotations, and frequently shy away from a medical oncology experience. Whether this is from lack of knowledge of the complexities of oncology care, or fear of the same is unknown. Clinical rotations lead to employment interest from students, but we have a workforce that is under-represented by Bachelor’s degree prepared Nursing staff. Advantages to attracting BSN programs for clinical rotations are many: introducing students to oncology nursing, providing an opportunity to work with experienced oncology nurses, increasing the knowledge base of nursing school faculty as it relates to oncology and increasing the recruitment pool of BSN graduates in a period of time where there is a shortage.

Challenges were how to entice baccalaureate nursing faculty to explore a clinical rotation at a comprehensive cancer center, how to support faculty who supervise students in a new environment, provide a valuable learning experience for the students and an environment that will encourage them to apply for positions. This presentation will review an oncology orientation for nursing faculty, methods utilized to encourage faculty to consider clinical placement on an inpatient oncology unit at a CCC, preparation of nursing staff who precept students on two highly acute medical oncology inpatient units and feedback from the nursing students and faculty who participate in clinical rotations at RPCI.

The nursing shortage and employment opportunities have RPCI competing for the recruitment of oncology nurses. Supporting both nursing faculty and nursing students through an oncology clinical rotation may provide a recruitment opportunity, but will provide new graduates with valuable learning opportunities in an oncology setting.

ROUNDING FOR OUTCOMES: CAPTURING NURSING EXCELLENCE ON AN INPATIENT ONCOLOGY UNIT. Laura Connelly, MA, RN, CCRN, ONC®; Evelyn Marinas, BSN, RN, and Yvonne Smith, BSN, RN, M.D. Anderson Cancer Center, Houston, TX.

Oncology patients face extraordinary challenges in obtaining, maintaining and completing their treatment for cancer. In the hospital setting, patients can feel overwhelmed, forgotten and frightened during their treatment course. Nurses are the front line leaders for the coordination and communication of patient care. The health of the nurse-patient relationship will affect the patients’ healing. In order to provide the best possible patient care, the patient’s perception of exceptional nurses must be taken into consideration.

The purpose of this project is to evaluate the patient’s perception of excellence in nursing care. Many patients receive questionnaires at home after they are discharged. These surveys are standardized and provide useful global information; however, nurses providing excellent care cannot be individually recognized using the standardized surveys.

While hospitalized on the Gynecological Oncology unit, nurse managers and administrators rounded on the patients. Employing the techniques delineated by Quint Studer in his book, Hardwiring Excellence, patients were able to give timely feedback about their care. Patients were also contacted within 24-72 hours of discharge as well using the same methodology.
Patient satisfaction and safety improved with timely rounding. During the third quarter of 2006, the patient satisfaction scores improved dramatically. The unit moved into the top quartile for the hospital. The Nursing Care for the unit was rated 9.7 out of 10. The unit was the only one to have 100% consistency in checking the patient’s ID band for safety. The Length of Stay was reduced by half a day for the months of September and October. Additionally, patients were given the opportunity to recognize truly outstanding nurses and assistants.

Interestingly, over 50% of the most mentioned nurses were nurses with less than two years experience. These nurses represent only 15% of the total nursing staff on the unit. All of the new nurses were baccalaureate prepared. The impact of educational level and training should also be evaluated. Nurse satisfaction should also be measured.

2097
OBTAINING AND SUSTAINING A HEALTHY WORK ENVIRONMENT.
Laura Connolly, MA, RN, CCRN, OCN®, M.D. Anderson Cancer Center, Houston, TX.

The American Association of Critical Care Nurses advanced an initiative in 2005 that upheld the IOM’s contention that healthy work environments provide the safest care for patients and the staff that care for them. Poor communication, poor professional relationships, understaffing and poor management set the stage for medical mistakes and substandard care.

Similarities between an oncology patient and an ICU patient can be found in medication regimens, isolation protocols, and disease processes. All staff members, medical and nursing, needed to be aware of the elements of a healthy work environment as well as its impact on patient safety. Education was provided to in-patient nursing staff on an oncology unit as well as to the medical faculty and fellows.

Nursing and medical staff were educated about the six elements of a healthy work environment: skilled communication, true collaboration, effective decision making, meaningful recognition, appropriate staffing and authentic leadership. Nurses communicated to physicians in SBAR format. Nurses rounded with faculty in the patient’s rooms as well as offered nurse practice guidance in weekly grand rounds. Staffing ratios were reduced and a free charge nurse was added as well as a discharge nurse. Nursing staff were recognized if they were mentioned in “Rounding for Patient Outcomes” and “Rounding for Staff Outcomes” using the Studer model.

Physicians and nurses reported better communication and morale. The Length of Stay reduced by half a day for the third quarter of 2006. The patient rating for nursing care moved from 9.4 to 9.7 in the 3rd quarter. There were no medication errors in the 3rd quarter. There were 91 days between patient falls in the 3rd quarter. Nursing turnover was 0% and five new staff nurses were added in this quarter due to a staffing budget increase. There were no unsuccessful patient rescues on the unit.

Oncology nurses, physicians and patients all benefit from a healthy work environment. Incidence of medication errors, patient falls and successful patient rescues should remain low in an environment that supports healthy team work, communication and decision making. These elements are reported monthly on the unit’s quality scorecard.

2098
A STRUCTURE FOR EVIDENCE-BASED NURSING PRACTICE IN A HOSPITAL ENVIRONMENT. Nancy Kline, PhD, RN, CPNP, FAAN, and Bridgette Thom, MS, Memorial Sloan-Kettering Cancer Center, New York, NY.

Despite an aggressive research agenda, the majority of findings from research are never integrated into practice. Without current best evidence, practice becomes rapidly out-of-date to the detriment of patients. We developed a formalized program for evidence-based practice within the Department of Nursing, in which all existing policies and practices are reviewed, and new policies are developed using a standardized evidence-based approach.

The purpose of this presentation is to describe the development and maintenance of an organizational infrastructure to support the EBPs process within the Department of Nursing.

In September 2005, five practice subcommittees were created to represent nursing practice throughout the institution: acute care, pediatrics, procedural areas (e.g., OR, radiology, endoscopy), ambulatory clinics, and critical care (e.g., ICU, PACU). The membership consists of nurses from each area, and each subcommittee meets one day each month. Formal training in the evidence-based review process was provided for the subcommittee members prior to initiation of the Departmental program. Initially, the Director of Evidence-Based Practice and Research and the Research Analyst for the Department met with the individual subcommittees as facilitators, and still continue to do so as needed. Ongoing training regarding advanced literature search techniques and critiquing the research literature is offered. Tasks of the subcommittees include the following: revision of existing policies and development of new policies using an evidence-based approach, evaluation of current evidence to make recommendations for practice changes, designing metrics to measure patient outcomes, and communicating work in progress to the Departmental Practice Council.

In the 15 months since the program started, 10 clinical questions have been answered using the evidence-based approach. A first annual evidence-based practice continuing education conference was held in December 2006. The individual subcommittees presented their evidence-based reviews and practice changes.

An evidence-based approach to practice is not a destination, but an ongoing journey. Developing an infrastructure to support evidence-based practice is necessary to make sure that current best evidence is used when providing patient care. This program involves a major organizational commitment and culture change, along with the ability to provide education regarding the process and ongoing mentoring from experienced researchers.

2100
SYMPTOM CONCERNS AND QOL IN PATIENTS WITH OXALIPLATIN-INDUCED PERIPHERAL NEUROPATHY. Virginia Sun, RN MSN, Betty Ferrell, RN, PhD, FAAN, Shirley Otis-Green, MSW, ACSW, LGSW, OSW-C, Stephen Shibata, MD, and Gloria Juarez, RN, PhD, City of Hope National Medical Center, Duarte, CA; and Kyong Choi, MA, Vital Research, Los Angeles, CA.

Standard chemotherapeutic regimens for colorectal cancer (CRC) often utilize multiple agents with toxicities that may impact QOL both acutely and chronically. Oxaliplatin-induced peripheral neuropathy, a dose-limiting toxicity, is common in CRC and may impact QOL.

The purpose of this study was to describe the symptom concerns of CRC patients with oxaliplatin-induced peripheral neuropathy and explore the impact of symptoms on patient’s QOL. This study addressed the priority topic of increasing the understanding and management of understudied symptoms such as peripheral neuropathy.

Study framework is based upon the COH QOL model and on the FACIT model. The framework demonstrates that symptom concerns may impact QOL across the domains of physical, social, emotional, and functional well-being.

This prospective, longitudinal study incorporated a mixed-methods design to gain insight into participant’s experience with peripheral neuropathy. Virginia Sun, RN MSN, Betty Ferrell, RN, PhD, FAAN, Shirley Otis-Green, MSW, ACSW, LGSW, OSW-C, Stephen Shibata, MD, and Gloria Juarez, RN, PhD, City of Hope National Medical Center, Duarte, CA; and Kyong Choi, MA, Vital Research, Los Angeles, CA.
neuropathy. Sixty-three CRC patients treated with oxaliplatin were accrued, and 20 semi-structured interviews were conducted. Participants were followed from treatment initiation and at 24 hours, 1 week, 1 month, and 2 months post-initiation. Outcome measures included the FACT-C, FACT/GOG-Ntx, and Neuropathic Pain Scale. Toxicity grading was documented using the NCI-CTC and Oxaliplatin Specific Scale. Data analysis was derived through descriptive design of quantitative symptom reports along with simultaneous regression method to determine variance in QOL. Qualitative data was interpreted through content analysis methods.

Mean age of subjects was 60, and ethnicity included 61% Caucasian, 14% Hispanic, 11% Asian, and 6% African American. Subjects included 22% Stage III and 29% Stage IV of which 45% were undergoing treatment for initial diagnosis and 14% were undergoing treatment for recurrent disease. All participants were oxaliplatin-naive at baseline. Subjects identified symptom concerns in the physical (30%), emotional (40%), and functional (30%) domains of QOL. Grade I neuropathy was seen in 47%, Grade II in 13%, and Grade III in 1.6% of participants. Qualitative data indicated that peripheral neuropathy was tolerable but had some impact on functional status for participants. The identification of specific symptom concerns in oxaliplatin-induced peripheral neuropathy will enhance clinical understanding of the symptom and aid in the future development of nursing interventions for this patient population.

2101
DECREASING THE RISK OF CHEMOTHERAPY ERRORS THROUGH A FAILURE MODES AND EFFECTS ANALYSIS (FMEA) AND A FOCUS PDCA (PLAN, DO, CHECK, ACT) QUALITY IMPROVEMENT MODEL. Karen Roesser, RN, MS, AOCN®, Thomas Johns Cancer Center, Richmond, VA.

Schulmeister reported that sixty-three percent of nurses related that chemotherapy errors have occurred in their practice. The end result may be increased patient morbidity, mortality, and/or lawsuits related to the nurse’s role in chemotherapy administration. Therefore, every effort to ensure and improve safety mechanisms related to chemotherapy needs to be undertaken to prevent chemotherapy errors from ever occurring.

The purpose of this project was to systematically evaluate the processes associated with chemotherapy administration at our institution and where potential problem areas were. This included a review of the process in our infusion center, medical, and surgical oncology units.

A team was developed which consisted of staff nurses, pharmacists, nursing management, the oncology clinical nurse specialist, and the patient safety officer. The team utilized the FMEA methodology and identified potential problem areas and their root causes. Each problem area was rated and given a risk priority score according to how likely it was to occur and the consequences of its effect. These FMEA results were incorporated into patient safety performance improvement activities using the FOCUS PDCA methodology. As a result of this, a new chemotherapy order form was developed with input from this team, our physicians, and our cancer committee.

The team identified the following areas to be of highest risk related to the chemotherapy process which was in place: chemotherapy ordering form incomplete, order clarification not communicated, and AUC dosing formula not known. The evaluation of our newly revised chemotherapy ordering form has been error free to date.

The use of a FMEA related to the chemotherapy process is particularly beneficial in evaluating processes for possible failures and to prevent them by correcting the processes proactively rather than reacting to adverse events after failures have occurred. Used in combination with other tools such as the PDCA, a new chemotherapy order form was developed which will continue to be evaluated through the PDCA model.

2102
EMPOWERING STAFF NURSES TO IMPROVE THE CHEMOTHERAPY/INFUSION PROCESS FOR PATIENTS, FAMILIES AND STAFF. Mary Ann Long, BSN, RN, OCN®, Michelle Lorenz, RN, AASN, and Salem Denton, RN, BSN, Roswell Park Cancer Institute, Buffalo, NY.

A mainstay in the arsenal of treatment for cancer is the administration of chemotherapy as both a primary and a secondary therapy. Numerous factors including incomplete orders, inadequately scheduled appointments and chair lock play a role in determining the actual length of time that a patient spends in the ambulatory Chemotherapy/Infusion Center, how tolerable the visit is for the patient and how seamlessly the therapy is administered.

Because the nurses that administer the chemotherapy and infusions in the center have an intimate knowledge and understanding of how treatments are scheduled and administered, it is imperative that these nurses be involved in the change process to ensure that the chemotherapy or infusion experience is optimized for patients.

The nursing staff identified both barriers and potential solutions for improvement including:

a. an alternate work schedule was proposed by the nursing staff and implemented which allowed for additional time away from their stressful job and allowed greater flexibility in scheduling for patient’s therapies.

b. patient’s schedules were altered to increase the available nursing hours and subsequently increase the available chair hours.

c. a process for obtaining and checking chemotherapy orders the day before therapy was initiated to ensure availability, completeness and accuracy of orders.

Included in this presentation will be the positive impact resulting from these interventions in the areas of recruitment and retention of registered nurses, utilization of overtime, patient satisfaction and medication variances and interventions.

Implementing a shared governance model into our Chemotherapy/Infusion Center has improved the operation of the center. This presentation will be of interest to oncology nurses in other organizational settings challenged by increasing demands on their resources.

2105
IMPLEMENTING A PROGRAM TO PROMOTE PATIENT SAFETY BY ENHANCING COMMUNICATION BETWEEN INPATIENT MID-LEVEL PROVIDERS AND THE PATIENT’S FOLLOW-UP PHYSICIAN/NURSE. Michelle Rohlfs, RN, Donna Gerber, RN, MN, PhD, AOCN®, Carol Lacey, PA-C, Jessica Richard, RN, ANP, OCN®, and Tina Dett, RN, FNP, UT M.D. Anderson Cancer Center, Houston, TX.

Many patients travel to comprehensive cancer centers to receive cancer treatment. They receive medications, whether inpatient or in an ambulatory treatment center, and return to their hometown between courses of treatment. Treatment complications most often occur in the patients’ home areas/settings while under the care of their local oncologists/family physicians. In some instances the cancer center’s clinic team appears to be unaware of what transpired during treatment. Without the knowledge of what the patient received and what to expect while the patient is under their care, the physicians and/or clinic nurses may be lacking important information when making decisions regarding appropriate interventions. This is not an issue during the hospital stay in the primary treatment center, as communication is done with nurse-to-nurse handoff and physician-to-physician handoff per JCAHO requirements.
A need to have a systematic outline of how to communicate with the medical team responsible for the follow-up of patients receiving treatment with biochemotherapy or high-dose bolus interleukin-2 was identified. An action plan was initiated within the Department of Melanoma Medical Oncology to implement a program to enhance communication between the home medical team and the outpatient clinical team within our institution. A plan was developed to implement a consistent communication process within our own institution. When a patient is discharged from the inpatient setting, an email is sent to the outpatient clinical nurse/mid-level provider regarding the patient’s current status. The email message includes pertinent clinical information and any necessary follow-up including pending cultures. This communication is done regardless of disposition/discharge location. In addition, the inpatient mid-level providers communicate with the home area health care teams. Communication includes laboratory orders for interim tests, documentation of treatment including growth factors, and any other pertinent information (using HIPPA guidelines).

To evaluate the process, monthly meetings between the inpatient and outpatient personnel (including mid-level providers) are called to address any issues that may have arose. This poster will discuss the process and implementation of a communication plan to ensure the safety of patients receiving inpatient treatment and appropriate follow-up/outpatient care.

2107
FAILURE MODE AND EFFECTS ANALYSIS (FMEA): INTRAVENOUS CHEMOTHERAPY ADMINISTRATION. Sandra Vannice, RN, MSN, OCN®, AOCN®, and Peggy Wimmer, PharmD, Denver Health Medical Center, Denver, CO.

A chemotherapy medication error can have a catastrophic outcome for a patient and family. System problems such as understaffing and poor communication can contribute to the occurrence of medication errors. Health care Failure Modes and Effects Analysis (FMEA) is a proactive assessment that identifies and improves steps in a process ensuring a safe and clinically desirable outcome. FMEA provides the framework for a systematic approach to identify and prevent problems before they occur. Because of the high risk related to administration of chemotherapy and the relatively small volume of patients treated at both our infusion center and hospital we chose to conduct an FMEA to ensure the highest level of safety for our cancer patients receiving chemotherapy.

The purpose of this project was to evaluate our processes related to chemotherapy administration from the written order to drug delivery to ensure a high quality of patient safety.

A multidisciplinary team consisting of pharmacy, in patient and outpatient nursing staff, nursing administration, oncology physicians, clinic and hospital admissions staff, and risk management met to discuss processes and complete flow diagrams of chemotherapy administration to proactively determine where failures in the process could occur. A hazard analysis was conducted and interventions leading to revised policy and procedures were designed to prevent errors and improve hazards. Indicators were identified to follow outcomes and to test and analyze the redesign process. A strategy was implemented for sustaining improvements over time.

The number of reportable chemotherapy events declined over time and the hazard score improved. As a result of this project the FMEA was extended to review the ordering and administration processes of cytotoxic drugs for non-oncologic indications in all settings across the institution.

By reviewing the chemotherapy administration processes through an FMEA, oncology nurses are able to identify how and where failure may occur in a system leading to chemotherapy medication errors and undesired outcomes. We have improved the chemotherapy administration practices, decreased reportable events and improved the safety of chemotherapy administration to patients at our institution through the FMEA process.

2108
CHEMOTHERAPY INDUCED NEUTROPENIA AND RELATIVE DOSE INTENSITY: AN EVIDENCE BASED PRACTICE PROJECT. Sandra Vannice, RN, MSN, OCN®, AOCN®, Jeremy Garcia, RN, Mary Sweeney, RN, Catherine Dingley, RN, FNP, Mary Derieg, RN, DNP, and Teresa Trabert, RN, Denver Health Medical Center, Denver, CO.

Chemotherapy induced neutropenia (CIN) can result in treatment delays and/or dose reductions. Recent studies focused on Relative Dose Intensity (RDI) in patients with non-Hodgkins lymphoma and breast cancer demonstrate that maintaining dose intensity and preventing dose delays impact patient outcomes and survival. The National Comprehensive Cancer Network recently published guidelines for the use of myeloid growth factors in cancer treatment, including risk factors for chemotherapy induced neutropenia to guide practitioners in early identification of patients who may benefit from prophylactic growth factor to maintain an optimal treatment schedule. Nursing staff in our infusion center perceived an increase in the number of treatment delays due to neutropenia and felt that our practice patterns appeared inconsistent with current recommendations.

Determine the number of chemotherapy patients in our practice who are dose delayed or dose reduced due to CIN and calculate the RDI of this patient population. Determine what risk factors as documented in the literature impact our patient population.

Data was collected on chemotherapy treatment delays due to an Absolute Neutrophil Count (ANC) less than 1500 mcg/dl in both inpatient and outpatient settings. Individual risk factors for neutropenia were identified using the Chemotherapy Risk Factor tool created by Wolf, Crawford, & Dale.

Thirty patients were identified – 16 outpatients and 14 inpatients. The average RDI of outpatients was 71% and 79% for inpatients with approximately half of the patients with RDIs below the recommended 80%. Predominant risk factors among the patient sample included: advanced cancer, low hemoglobin, bone marrow involvement, and comorbidities such as diabetes.

This project informed us as to the number of patients in our practice who experienced CIN resulting in dose delays or dose reductions and congruence of risk factors that impact our patient population with those in the oncology literature. The project focused on a population that is typically underserved, thus contributing to our understanding of the identified risk factors in a diverse population. Future directions include initiatives to implement a risk assessment tool and RDI calculation in our practice setting.

2109
UTILIZATION OF VACUUM ASSISTED CLOSURE (V.A.C.) THERAPY IMPROVES QUALITY OF LIFE IN THE ONCOLOGY POPULATION. Elizabeth Grahn, RN, BSN, OCN®, Umme Ahmed Aleya, RN, BSN, Halina Benenati, RN, BSN, Tracey Liucci, RN, BSN, OCN®, and Lorraine Solomon, RN, BSN, Memorial Sloan-Kettering Cancer Center, New York, NY.

Oncology patients with wounds experience impaired healing due to chemotherapy, myelosuppression, immunosuppression, disease processes or radiation. Utilization of V.A.C. therapy significantly improves quality of life for oncology patients with impaired wound healing ability. Quality of life improvements include decreases in healing time, bioburden, dressing change frequency and associated pain. V.A.C.
therapy is palliatively used to contain copious drainage, decrease pain and increase patient independence. Unique advantages in the oncology population include improved caregiver wound management ability, facilitation of wound healing in previously irradiated areas and management of drainage from wounds encompassing disease.

The purpose of V.A.C. therapy is to facilitate healing, remove, divert and contain drainage and control odor. It is a closed system that uses computer controlled negative pressure and replaces traditional wet to moist dressings with specialized foams, an occlusive dressing and a closed drainage system. It reduces bioburden and helps to decrease complications in the immunosuppressed oncology patient. It can significantly decrease frequency of multiple daily dressing changes and completely contain drainage allowing oncology patients greater comfort and mobility.

Once appropriateness of V.A.C. therapy is determined and it is initiated, nursing care includes removal, cleansing, and reapplication of specialized foams, dressings and appliances every other day. Increased reapplication frequency may be required with infected wounds. Systems must be monitored to ensure the integrity of the occlusive dressing and application of the prescribed pressure setting. Drainage monitoring is also necessary. At this NCI designated comprehensive cancer center, wound care nurses implement V.A.C. therapy according to prescribed orders. These nurses assess each wound, apply and manage systems. They educate nursing staff regarding monitoring and management of V.A.C. therapy systems. They act as clinical resources to colleagues.

Wounds are assessed prior to therapy implementation and with each removal and reapplication. Wounds are measured at initiation of therapy and at weekly intervals thereafter until discontinuation to determine treatment effectiveness. Patient comfort and quality of life is similarly assessed for success of therapy.

In conclusion, V.A.C. therapy provides an opportunity to improve the comfort and quality of life for the oncology patient and facilitates healing of wounds unique to this population.

2110 VALIDATION OF RISK ASSESSMENT IN AN UNDERSERVED PATIENT POPULATION WITH CHEMOTHERAPY INDUCED NEUTROPENIC FEVER. Sandra Vannice, RN, MSN, AOCN®, and Jodi Luddington, RN, Denver Health Medical Center, Denver, CO.

Research has shown that dose delays and dose reductions lead to a decreased relative dose intensity (RDI) effecting overall survival in some cancer populations. Risk factors for neutropenia documented in the oncology literature, and guidelines for administration of hematopoietic growth factor, can guide practitioners in early identification of patients who may need prophylactic growth factor to maintain an optimal treatment schedule. In spite of current evidence, many practitioners do not utilize risk assessment identification to guide clinical decisions and practice.

To determine if patients admitted for hospital management of neutropenic fever (NF) had risk factors that could have been identified through the use of the Neutropenia Risk Assessment tool.

This project was carried out in an urban teaching hospital serving a predominantly indigent population that has a high number of Hispanic patients. Through a retrospective chart review, 25 cancer patients admitted for neutropenic fever during 2004 were identified by a medical record query. Medical records were individually reviewed to ensure a diagnosis of cancer. Data on the administration of G-CSF, treatment delays and/or dose reductions in the sample was gathered, and Individual risk factors for CIN were identified using the Neutropenia Risk Assessment tool developed by Wolf, Crawford, & Dale.

Findings reveal a relatively young population (mean = 48 yrs.), predominantly Hispanic (79%), who utilized primarily Medicaid or Medicare as a payer source. The most frequently occurring risk factors included: dose intensive treatment, active tissue infection, bone marrow involvement, low baseline hemoglobin, and preexisting neutropenia. The average ANC on admission was 400/mm³ and 43% of the patients received growth factor.

Although the small sample size limits the generalizability of these findings, this project does inform us of our patient population and practice patterns. Determining which risk factors apply to our unique patient population will enable us to better manage our patients with CIN and potentially impact their outcomes. This project affirms the value of risk factor identification and collaboration with providers on the use of growth factor. Additionally, it enforces the need to continue ongoing research in an underserved Hispanic population with unique needs.

2114 INFECTION CONTROL AND PREVENTION IN THE ONCOLOGY POPULATION: DEVELOPING AN INFECTION CONTROL RESOURCE NURSE
Oncology nurses in the acute setting, care for very ill patients and their family members on a daily basis. Some of these patients experience long and complicated hospital stays. Providing quality care can be extremely challenging when family dynamics are a disruption to the provision and delivery of care. Family dynamics in a family with a history of poor coping skills can be exacerbated by hospitalization; abnormal cell-mediated immunity, and sedation or central nervous system dysfunction. Opportunistic infections may arise as a result. A number of measures should be routinely implemented to prevent infections. The oncology patient can strengthen defenses by practicing good dental care, not smoking, following treatment recommendations, performing hand hygiene, keeping immunizations up-to-date, maintaining good nutrition, engaging in physical conditioning, and receiving psychosocial support. Oncology nurses can help protect the immune-compromised patient by practicing effective hand hygiene, cleansing the patient’s skin antiseptically whenever it must be breached, strictly following transmission-based isolation guidelines, and restricting visitors with communicable diseases.

Based on assessment of a need to incorporate current infection control and prevention standards for use by the bedside practitioner, an instructional program to develop Infection Control Resource Nurse (ICRNs) leaders was proposed, planned, and implemented at this NCI-designated cancer center.

Utilizing evidence-based guidelines from the Centers for Disease Control and Prevention (CDC), Association of Professionals in Infection Control & Epidemiology (APIC), and the Institute for Healthcare Improvement (IHI), an educational curriculum was developed by an infection control practitioner who is also an oncology-certified registered nurse for oncology nurses with an interest in infection control and prevention.

The curriculum objectives included describing the interaction between agent, host, and environment, as well as modes of transmission, which promote the chain of infection; reviewing standard and transmission-based precautions; reviewing types of opportunistic infections; discussing antimicrobial therapy and emerging resistance; exploring the purpose and benefits of microbiology culture surveillance; promoting patient safety initiatives; and listing patient/family education strategies. Nurses from every inpatient and outpatient area of the center participated in the inaugural core training day sessions. With specialized training and continuing educational opportunities, ICRNs will improve identification of patients at risk for infection, improve quality of care, and reduce or prevent the incidence of infections.

### 2116

**CARE DELIVERY ALGORITHM FOR ALTERED FAMILY DYNAMICS.** Mary Lohmann, RN, and Mary Cline, MSN/MPH, APRN, BC-PCM, AOCN®; University of Texas M.D. Anderson Cancer Center, Houston, TX.

Oncology nurses, in the acute setting, care for very ill patients and their family members on a daily basis. Some of these patients experience long and complicated hospital stays. Providing quality care can be extremely challenging when family dynamics are a disruption to the provision and delivery of care. Family dynamics in a family with a history of poor coping skills can be exacerbated by hospitalization; and within this complex dynamic nursing must be able to develop a plan to provide effective care, decrease anxiety and burn-out among staff members, increase patient and family satisfaction, and facilitate positive communication between the staff, patient, and family.

Literature on difficult family dynamics and conflict has identified key behaviors of such families: demands for futile care or unnecessary medical interventions, tyrannical absentee family member, increasing demands and phone calls, splitting of staff, verbal abuse of staff, and increased staff anxiety. By identifying these behaviors a staffing pattern utilizing care delivery algorithm would be developed that would individualize patient care within the context of altered family dynamics.

The care delivery algorithm would be initiated early in a patient’s admission. Interventions would include, but not be limited to the following: patient assignments to be structured based on the primary care delivery model to provide continuity of care and prevent the splitting of staff by the family; alignment of treatment goals between nursing and the medical team; increased communication among the medical and interdisciplinary team, and nursing staff in coordination of care; and limit setting of the family’s disruptive behaviors.

Evolution of the care delivery algorithm would be highly individualized due to the complexity of different patients and family dynamics. The nursing staff would meet weekly for education and discussion regarding the case. The staff would also meet post-discharge for discussion and debriefing of the case so any alterations could be made to the plan to better manage identified patients and families in the future.

### 2117

**THE ONCOLOGY NURSE’S ROLE IN CARING FOR THE PATIENT WITH HEREDITARY NON POLYPOSIS COLORECTAL CANCERMA.** Danielle Devita, RN, BSN, MA, Memorial Sloan-Kettering Cancer Center, New York, NY.

Hereditary Non Polyposis Colorectal Cancer (HNPPC) is an autosomal dominant inherited disorder, characterized by early onset colon cancer and is associated with an increased lifetime risk of endometrial, ovarian, and gastric cancers, to name a few. Individuals and their kin, who are identified as carriers of this genetic mutation, have a lifetime risk of colon cancer as high as 82%. The second most common malignancy reported is endometrial cancer. Considering the large numbers of patients who are affected with both colorectal cancer and endometrial cancer each year, there is the potential for a substantial amount of patients who may have a genetic mutation. As the field of genetics becomes more established, the oncology nurse has an increased responsibility to understand genetic syndromes so that they can identify at risk patients, educate accordingly and anticipate appropriate plans of care.

This presentation will describe the characteristics of HNPPC syndrome, the associated molecular mutations, related cancer risks, appropriate surveillance algorithms and the implications for oncology nursing practice.

Oncology nurses are in a key position to identify patients who present with a significant family or personal history that may suggest an underlying genetic syndrome. Once identified, patients are referred to a genetics expert who will determine the need for genetic testing. If genetic testing confirms HNPPC, the patient is placed on a surveillance program. In collaboration with the patient’s care team, the oncology nurse can educate the patient regarding the rationale and preparation for screening procedures, facilitate referrals and provide psychosocial support.

Early identification of patients and family members at risk is a crucial first step in helping to reduce morbidity and mortality associated with HNPPC.

In today’s health care environment, the field of genetics is providing new opportunities for screening and early detection. Oncology nurses are at the forefront to educate and care for these patients, potentially resulting in more positive patient outcomes.
Maximizing the percentage of women who overcome breast cancer is currently dependent on routine breast cancer screening—an activity which can be enhanced by oncology nurses. Rural women are particularly at risk because they frequently do not take advantage of screening methods that are readily available to their urban counterparts. Economic factors, sociocultural differences, and isolation of living in more remote areas combine to impede screening and health promotion for rural populations. Eighty percent of uninsured US individuals are full-time workers or dependents. Remote rural residents are less likely to have health benefits than urban workers because they are more likely to earn lower wages and to work for small businesses with fewer employees making coverage costs by employers prohibitive.

The purpose of this project was to provide breast health education and access to no cost breast cancer screening to rural, low income, medically underserved women. The HANYS Model provided a framework for developing an Employee Mammography In-Reach program. An In-Reach Program can offer a cost effective method to reach substantial numbers of women for breast cancer screening in rural areas. Literature does not support that rural employers have been involved in breast cancer screening programs or that the HANYS Model has been used outside large urban institutions.

The goals of the project were to: 1) provide breast health education and access to no cost mammography screening to rural low income women, 2) use an Employee In-Reach model to provide this program to female employees in local businesses and 3) provide sustainability by educating a business-based breast health resource. Applying the HANYS Model, nurses from the Southeastern Indiana Cancer Health Network (SEICHN) collaborated with three small businesses in two rural communities to provide breast cancer education and free screening to employees.

Results indicated that over 4/5’s of all female employees participated. In each business a breast health contact person was educated for providing ongoing breast health support and ensuring an ongoing link with SEICHN.

Based on overwhelmingly positive project evaluation by employers, employees, and nurses, the HANYS Model is recommended to oncology nurses for consideration in planning cancer screening programs.

Myelosuppressive chemotherapy is the gold standard in treating oncology patients. Neutropenia is an anticipated consequence of the treatment. In an effort to protect patients from infection, “neutropenia precautions” are often implemented. One component of neutropenia precautions is to restrict the patient’s intake of fresh fruits/vegetables.

The purpose of this project was to determine if evidence supports restricting patient’s intake of fresh fruits/vegetables to prevent infection. A literature search was conducted in the Spring, 2005 and revealed that diet cannot be directly linked to the incidence of bloodstream infections. Research suggests that safe food handling/prepara-
Allegra Jackson, RN, BSN, MBA, CNOR, M.D. Anderson Cancer Center, Houston, TX.

Treatment of surgical oncology patients involves procedures that require extensive debulking of complex tumors, lysis of adhesions, extensive reconstruction, and subsequent bleeding because of chemotherapy/radiation prior to surgery. As a result, surgical oncology patients are predisposed to multiple postoperative complications requiring high acuity care and observation. Perioperative experience can increase medical-surgical nurses’ understanding of required postoperative assessment maximize patient outcomes, and add value to the RN-MD relationship.

The purpose of the project was to provide an opportunity for nurses who provide postoperative care to surgical gynecologic oncology patients to observe patient care in the surgical setting. This benefits the patient, nurse, and attending physician by supporting RN-MD collaboration and enhancing the nurses’ understanding of how to care for the patient postoperatively.

Nurses were scheduled one day long rotation in the operating room. While they interacted with members of the surgical team and assisted with patient care. Physicians walked them through procedures and explained as they went along. At the end, the nurse followed the patient to the post anesthesia care unit, and ultimately cared for the patient on the surgical unit.

A questionnaire was used to measure if learning concepts were met and obtain nurses’ feedback on the overall experience. Open-ended questions provided opportunity for nurses to express how the experience benefited their practice, and affected their rapport with medical staff.

Nurses reported being enlightened about how involved the procedures are, and what the physicians go through in the operating room to deliver quality care. Many nurses reported how they appreciate the importance of pain control after seeing how patients are manipulated. They felt more competent in caring for and assessing wounds and drains since they were able to see where and how they were placed.

Dialogues that began between physicians and nurses in the operating room continued throughout the postoperative phase. Nurses felt as though the physicians were genuinely interested in collaborating with them and regarded them as competent professionals. An operating room experience increases the medical-surgical nurses’ understanding of postoperative care and encourages a positive RN-MD relationship. All of which maximizes patient outcomes.

2128
THE IMPACT OF PSYCHOSOCIAL SUPPORT ON REHABILITATION OUTCOMES OF TWO PATIENTS AFTER EXTERNAL HEMIPELVECTOMY. Beth Young, RN, FNP, MN, OCN®, Connie Le Day-Jacobs, MSW, M.D. Anderson Cancer Center, Houston, TX.

Despite major advances in chemotherapy and limb sparing surgery, external hemipelvectomy remains the optimal surgical intervention for high grade and metastatic sarcomas of the upper thigh and buttoc. Post-operatively, patients who undergo this procedure most often require a comprehensive inpatient rehabilitation course to improve strength, preserve range of motion, optimize pain management, and control lymphedema. Although much research has been reported on post-operative complications and long-term survival rates of individuals after external hemipelvectomy, little have noted the impact of psychosocial support in predicting functional outcomes.

In this case report, we present contrasting rehabilitation courses of two external hemipelvectomy female patients with similar demographics, but varying degrees of psychosocial support contributing to dramatically different functional outcomes.

Both patients (AA, BB) underwent external hemipelvectomy secondary to high-grade metastatic sarcoma of the pelvis. Postoperative AA and BB were medically stable with muscle strength of the three remaining extremities intact. Four identified psychosocial variables which greatly influenced the functional outcomes of these 2 patients included: (1) extent of patient’s social support system, (2) effective use of effective coping strategies, (3) patient’s overall sense of well-being/quality of life, and (4) management of psychological symptoms.

AA who had an excellent support from family, church and friends, as well as, a positive attitude regarding her rehabilitation and recovery, made exceptional functional gains during her 14-day rehabilitation course. At the time of discharge, she was able to ambulate 200 feet with minimal assistance with a Functional Independence Measure (FIM) gain of 36. BB had a limited support system and experienced multiple grief/loss issues related to her hemipelvectomy. Throughout her rehabilitation program, BB was unmotivated with little participation in physical and occupational therapy. After her 14-day rehabilitation course, she still required total assistance with ambulation and had a FIM score gain of 18.
These 2 cases indicate the important influence of psychosocial factors on functional outcomes. Oncology nurses should include an assessment of patient’s psychological and social support in formulating their plan of care.

2130

CONTENT VALIDITY OF THE PAIN AND NURSING CARE QUALITY (PANCQ) SURVEY. Susan Beck, APRN, PhD, AOCN®, FAAN, and Patricia Berry, PhD, APRN, BC-PCM, University of Utah College of Nursing, Salt Lake City, UT; Jeannine Brant, RN, MS, AOCN®, St. Vincent Healthcare, Billings, MT; Ellen Smith, MS, APRN-BC, AOCN®, Norris Cotton Cancer Center/Dartmouth Hitchcock Medical Center, Lebanon, NH; and Gail Towsley, MS, University of Utah College of Nursing, Salt Lake City, UT.

Research to document the impact of oncology nurses on patient outcomes, such as pain, is an ONS priority. A significant barrier to such research is the inability to effectively measure the quality of nursing care. The most common approach, measures of patient satisfaction, tend to be global, e.g. overall satisfaction with nursing care and are usually temporally framed within the entire hospital stay.

The purpose of this study was to establish the content validity of the PaNQC survey. The ultimate goal is to develop a simple measure of the quality of nursing care related to pain management at the end of a nursing care shift in the acute care setting. This report summarizes developmental and judgmental phases of examining content validity of the PaNQC.

In the developmental phase, qualitative analysis of data from 34 patient interviews yielded an item pool (n=102) reflecting concepts identified by cancer patients as important to pain management: quality of care; being treated right, safety net, efficacy of pain management, and partnership with the interdisciplinary team.

Members of the research team individually rated the relevance of each item and collectively agreed to delete 19 items. PaNQC Version 3, consisting of 88 items, was then reviewed by nine national pain management and nursing care quality experts. We used a 4-option rating scale (ranging from not relevant to relevant and succinct).

Applying published and accepted criteria, we established content validity beyond the .05 level of significance if at least 8 of 9 experts agreed the item was relevant but needed minor alteration or if the item was very relevant and succinct. We took a liberal approach, meaning fewer items would be deleted. Based on the expert panel survey items were deleted, reworded, and added; 75 items remain which will now be tested systematically using cognitive interviewing and then in a large multi-site sample.

2131

DEVELOPMENT OF A NURSE COORDINATED EVIDENCE-BASED SMOKING CESSATION PROGRAM IN A COMPREHENSIVE CANCER CENTER. Maureen O’Brien, RN, MS, CTTS-M, and Sheila Keaveney, RN, MA, NP-C, Memorial Sloan-Kettering Cancer Center, New York, NY.

Tobacco products cause more cancer deaths than any other carcinogen, with 155,000 new cases of tobacco-related cancers diagnosed yearly. Since there are no reliable screening and early detection methods for most of these cancers, smoking cessation is critical to reducing cancer mortality. Most of these patients are motivated to quit at the time of diagnosis, offering the nurse a “teachable moment” to intervene. The efficacy of nurse-led cessation interventions has been documented.

This abstract describes the development of a nurse-coordinated smoking cessation program in a comprehensive cancer center.

An Oncology Clinical Nurse Specialist was chosen by the program director (psychologist) to coordinate the program. The CNS was certified as a Tobacco Treatment Specialist after gaining proficiency in brief motivational interviewing and treating tobacco dependence & withdrawal. The CNS moved to standardize tobacco use questions in all nursing assessment forms in order to provide an effective prompt for referrals to the program. Multiple channels were established for making referrals, i.e., email, in-person, and electronic order system. Electronic initial assessment and treatment forms were created as part of the patient’s medical record. To facilitate proper use of smoking cessation pharmacotherapies, guidelines were developed and distributed to providers and integrated into the electronic medication ordering system. The program staff created educational materials tailored to tobacco-dependent cancer patients and their families and placed them in all clinics.

Each year, referrals to the Smoking Cessation Program have steadily increased, with 875 referrals made in 2005. The majority of referrals have come from the Thoracic (30%), Head & Neck (14%), and Breast (10%) services. As the program needs grew, a Nurse Practitioner joined the team to assist with pharmacotherapy and referrals. The oncology CNS and NP play key roles on the frontlines in providing treatment to cancer patients and their families and in providing in-service training and grand rounds presentations.

Currently underway are efforts to document the efficacy of the program, examine the efficiency of the referral process, identify patient characteristics influencing cessation success, and generate ideas for program improvement.

2134

THE CANCER SERVICE LINE’S USE OF SIX SIGMA IN THE HEALTH CARE SETTING: CREATING STANDARDIZED PROCESSES AND HELPING NURSES BECOME MORE EFFICIENT WITH LESS WORK WHILE IMPROVING STAFF AND PATIENT SATISFACTION. Deborah Dydyk, BS, MA, BSN, RN,C, Theresa Franco, RN, MSN, and Jason Lebsack, MA, Nebraska Medical Center, Omaha, NE.

Continuous quality improvement is a critical component in achieving excellence in health care delivery. Nurses from our Cancer Service Line had made repeated attempts with mixed results to address challenges surrounding optimum patient flow, timely laboratory specimen handling and reporting, order accuracy, and correct billing/reimbursement processes in a large ambulatory cancer treatment center. Following our institution’s application of Six Sigma and Lean Quality Improvement methods, nursing staff believed it had the potential to facilitate the identification of changes that could be implemented and sustained to accomplish our desired improvements.

The purpose of Six Sigma measurement-based strategy focuses on process improvement with reduction in variation. The goal is to provide high quality, cost effective care while maintaining high levels of patient/family and staff satisfaction. The Six Sigma model of define, measure, analyze, improve, and control (DMAIC) guided the improvement projects for each service line challenge.

Aspects of care delivery that were examined using this DMAIC process included: scheduling patients in the treatment center, assuring the availability of accurate orders and lab data, standardizing documentation of charges, and processing lab orders and specimens. The goal of the projects was to standardize Cancer Service Line practice and make the delivery of patient care more efficient, requiring less work without compromising quality or patient satisfaction.

Clinical process experts including RNs, techs, clerks, and managers were selected to work on the project teams to assure involvement in all aspects of the DMAIC process. The Six Sigma projects successfully decreased patient waiting time and improved flow, decreased billing rework and improved reimbursement, and reduced lab specimen turnaround time and improved efficiency. The improvements...
helped nurses work more efficiently without compromising patient care.

Our institution is an example of how Six Sigma can be used within
the healthcare setting. This presentation can help oncology nurses
learn how to use the DMAIC process to improve delivery of patient
care in their own clinical settings. Providing nursing staff with the
necessary tools and resources to improve care efficiency and involv-
ing them directly with the identification and implementation of solu-
tions helps improve staff and patient satisfaction.

2139
IMPACT OF AN ONCOLOGY NURSING CRITICAL THINKING PRO-
JECT. Susan Westlake, PhD, RN, AOCNS, Nancy Delzer, MBA, MSN,
Patty O’Connell, BS, BSN, and Patricia Quinn-Gasper, MSN, MAPS,
Columbia St. Marys, Milwaukee, WI.

The ability to think critically, and sensitively, is an essential com-
ponent of competent oncology nursing practice. The impact of an
innovative project designed to foster such thinking is examined in
the one-year evaluation data from 90 nurses. The enduring influence
of the critical thinking experience is highlighted and implications for
oncology nursing practice are discussed.

The purpose of the project was to enhance competency in critical
thinking and foster change in clinical practice.

Small discussion groups of inpatient and outpatient nurses, facil-
tated by clinical educators, critically analyzed a videotape compiled
from interviews with six oncology patients. The patients had been
asked to describe their experience of living with cancer. The ONS
14 high-incidence problem areas provided the framework for orga-
izing the interview excerpts, and video collages were developed
to support a 4-year clinical education plan. Brief biographies and
treatment histories were used to frame each patient’s experience. A
facilitator guide was formulated specific to disease pathophysiology,
diagnostic work-up, staging, psychosocial adjustment, and treatment
regimens and their complications. Evidence-based nursing strategies
were stressed. The nurses shared clinical anecdotes, insights, and
learning with colleagues as they reflected on the rich dimensions
of patient and family experience portrayed. The 2-hour module created
a unique opportunity for nurses to translate patient experiences into
new clinical realities.

Evaluation data were obtained immediately after and at one year
following the sessions. Scaled self-report responses indicated the
sessions positively affected daily practice through enhanced com-
munication skills and oncology knowledge, strengthened relation-
ships with colleagues, and improved patient and family teaching.
Themes of enhanced sensitivity to patient and family experience,
a broadened oncology knowledge base, and a heightened sense of
self-confidence and esteem for colleagues emerged from the quali-
tative data.

The use of a didactic method, grounded in patient stories, provides
an engaging and non-threatening opportunity for nurses to experi-
ence shared learning. Critical thinking is enhanced when it is based
in clinical reality and directly applicable to each nurse’s practice.
This innovative approach of thoughtful clinical inquiry is relevant
for all dimensions of oncology nursing.

2140
GROWING OUR OWN IN ONCOLOGY NURSING. Carol McCann, RN,
MSN, OCN®, Tripler Army Medical Center, Honolulu, HI; and Joanne
Itano, RN, PhD, OCN®, University of Hawaii, Honolulu, HI.

ONS states that “nurses must help attract individuals into careers
in nursing”. The nursing shortage and the “graying” of nurses will
impact the quality of comprehensive cancer care. There is also keen
competition among nursing specialties for the scarce resource of
nurses. Mentoring is a proven strategy to attract and retain nurses.
The purpose is to develop a mentorship program for senior student
nurses to recruit them into oncology nursing.

Ten nursing students participated in the 9-month program; 70% were
from ethnic minorities. Mentors were ONS volunteers from
4 community agencies. The students were required to complete a
minimum of 10 activities planned with their mentor. Advocacy was
an important theme; mentees joined ONS STAT and participated in
e-mail advocacy. They were warmly welcomed into the ONS family,
recognized at dinner meetings and the local ONS conference and
presented certificates at the completion of the program. Mentees
who completed all requirements are eligible for a grant to attend the
2007 Congress where the project coordinators will continue the
mentoring.

The project was supported by a national ONS Chapter Special
Project Funding and a grant from Hawaii ASCO.

90% of the students completed the program. An analysis of their
logs indicated a wide range of activities and positive impact on the
mentees (“The ONS mentorship program has made me confirm that
oncology nursing is where I want to be”). A six-month follow up will
assess the final impact of this mentorship program.

Oncology nurses were able to give back to the profession and share
their passion about being an oncology nurse (“Being a mentor is a
great way to help create a legacy and give back to a profession that
has given me so much.”).

Mentees were able to network with potential employers and the
community of oncology nursing. Hawaii ASCO has partnered with
ONS to submit a proposal to continue this program based on its suc-
cess. New members to both the local and national ONS were recruit-
ed and we believe attending Congress will provide an inspirational
and professional altering event for mentees.

2143
CAN YOU HEAR ME YET? THE IMPORTANCE OF EFFECTIVE COM-
mUNICAtION IN HAlTHCARE. Monique Willingham, RN, BSN, and
Timothy Eden, RN, BSN, Johns Hopkins Hospital, Baltimore, MD.

SBAR (situation, background, assessment, recommendation), is
a format for systematic communication modeled after aviation and
military communication hand-offs. Current literature supports that
organized communication in healthcare is essential however; no for-
mal training or a standard has been documented. The Joint Commis-
sion on Accreditation of Healthcare Organizations has determined
that seventy percent of sentinel events are directly related to ineffec-
tive and poor communication between multi-disciplinary healthcare
providers. A systematic standard of communication between health
:are providers is desperately needed to improve patient safety and
ensure quality patient outcomes. Nurses are in a unique and pow-
erful position to promote accurate and non-judgmental situational
awareness regarding a patient’s condition using a standardized com-
munication model.

This poster will educate nurses to effectively utilize a systematic
and structured communication model. A SBAR “Competency Train-
ing Program” was developed for a unit based nursing staff. The pro-
gram consists of a three phase didactic, return demonstration and
teaches and led by a unit nurse cham-

pion. Nurses are introduced to SBAR through a 1-hour group presen-
tation including handouts and case studies. Phase two includes a
1:1 educational session and role-play scenarios to increase the level
of comfort and trust with SBAR. The final learning phase is a real
time critique of an observed SBAR exchange between the nurse and
another health care provider, as well as, the SBAR documentation of
that exchange. The SBAR model facilitates assertion in new nurses who are learning the art of critical thinking and communication and promotes efficiency in information exchanges for the more experienced providers.

Multidisciplinary SBAR satisfaction surveys, documentation audits of preformatted SBAR communication notes, and a focused review of all communication related hospital events will serve as nursing outcome measures of SBAR practice.

The utilization of a structured communication technique for nurses and other health care providers promotes patient safety and quality patient outcomes by ensuring a common model. The result is assertive communication that promotes situational awareness and timely intervention for patients. Nurses are in a unique situation to lead the effort in modeling, teaching and measuring the value of organized communication.

2146
EVALUATING THE CORRELATION OF STAFF PERCEPTIONS OF COLLABORATION AND PATIENT SATISFACTION ON TWO MEDICAL SERVICES: MALIGNANT HEMATOLOGY AND ONCOLOGY PATIENT POPULATION. Regina Miles, BSN, RN, OCN®, Indiana University Hospital, Indianapolis, IN; Grace Schoonveld, RN, Clarian Health Partners, Indianapolis, IN; Larry Cripe, MD, Indiana University, Indianapolis, IN; Debra Burns, PhD, MT-BC, Indiana University, Indianapolis, IN; Fuad Hammoudeh, Clarian Health Partners, Indianapolis, IN; and Rich Francel, PhD, Indiana University, Indianapolis, IN.

Clarian Health Partners, Inc. (CHP) in collaboration with Indiana University Cancer Center (IUC) and Indiana University School of Medicine (IUSOM) is creating a first of its kind for Indiana free-standing cancer hospital on the campus of Indiana University-Purdue University at Indianapolis. The goal of the cancer program is to become a top-ten NCI Comprehensive designated cancer center in the United States. The researchers of nurse-physician collaboration posit that there is a direct correlation between collaboration and positive patient outcomes.

The purpose is to evaluate differences in collaboration in hematology and oncology services. The author’s primary hypothesis is that there is a statistically significant difference between nurse-physician collaboration for the hematology patient population and the oncology patient population.

Utilizing the Collaboration and Satisfaction about Care Decisions (CSACD) tool by Judith Baggs, a convenience sample of 30 medicine residents oncoming to the hematology and oncology service will be collected and at 3 weeks into the rotation. At the 3 week interval, the attending physicians and physicians in their fellowship will also be asked to complete the survey. At each 3 week interval within the 5 months, a convenience sample of 10 staff oncology/hematology RNs will be collected following obtaining informed consent from the participants utilizing the CSACD tool.

The primary outcome measure for all analyses will be the total score from the Collaboration and Satisfaction about Care Decisions (CSACD) questionnaire. The study is powered based on the comparison of combined RN and physician CSACD scores between hematology and oncology groups. Although a clinically relevant difference in total CSACD score has not previously been defined, it was decided that a 5-point difference between groups would constitute a significant difference. Assuming a standard deviation in questionnaire scores of 7 for each group, a total of 86 participants would provide 90% power to detect a difference of 5 points in mean questionnaire scores between groups using a Student t-test with a significance level of α = 0.05.

Results of this study will provide evidence to oncology nurses for administration to propose developmental opportunities and team interventions to improve nurse-physician collaboration within the inpatient cancer programs.

2148
MORE THAN JUST CANCER: PILOTING A SELF-MANAGEMENT PROGRAM AS AN INNOVATIVE, POTENTIAL PREVENTION STRATEGY FOR BREAST CANCER SURVIVORS. Elsye Caplan, MA, Living Beyond Breast Cancer, Ardmore, PA; Julie Becker, PhD, MPH, and Abbie Schlener, Thomas Jefferson University, Philadelphia, PA; and Andrea Crivelli Kovach, PhD, CHES, Arcadia University, Glenside, PA.

With the changing nature of the disease, breast cancer is becoming a curable disease for some or a chronic disease for others. Totaling more than 2.2 million women and growing, survivorship is a greater concern, since little is known about what long-term breast cancer survivors (LTBCS) require to maintain their disease-free status, to make informed health decisions and to reduce potential co-morbidities of other chronic diseases.

The purposes of this pilot study are to (a) understand the knowledge and attitudes of LTBCS about their health status, and (b) test if a self-management program can assist LTBCS in increasing their health information seeking behaviors and influence health behaviors that decrease chances for other cancers or health conditions.

Using a combination of Bandura’s social learning and Beck’s cognitive behavior theories, we considered the constructs of health and illness and the efficacy of a known intervention for LTBCS.

We conducted an exploratory study utilizing qualitative and quantitative methods with a community-based organization of breast cancer survivors between the ages of 45-79, and are at least 5 years disease-free from cancer but may have other chronic diseases.

With the qualitative portion of the study, we have identified three key themes from LTBCS: 1) the use of the term “cancer survivor” and its connotations; 2) the conceptualization of health and illness and; 3) sources where women get health information. These themes were used to develop tailored messages used in a self-management program.

Twenty women completed the 6-week self-management program, with pre, post, and 4 month data collection. Despite the sample size, five scales demonstrated an improvement in behavior, with two showing statistical significance (p<.05), including improved coping behaviors. These results suggest that a self-management program tailored to the needs of LTBCS can increase their health information seeking behaviors and influence behaviors necessary for improving health outcomes. Understanding the constructs identified from the qualitative portion of the study and the evaluations from the self-management program may assist nurses in coordinating efforts to assist LTBCS to potentially reduce co-morbid conditions, including secondary cancers.

Funding Sources: Funded, in part, with a grant from the Pennsylvania Department of Health.

2150
A CLINICAL EXEMPLAR OF A PATIENT WITH SEVERE HEMORRHAGIC MUCOSITIS FOLLOWING A HEMATOPOIETIC STEM CELL TRANSPLANT AND USE OF THE ENDOTRACHEAL TUBE WITH SUBGLOTTIC SUCTION. Mary Melvin, RN, Tracy Douglas, MSN, RN, OCN®, Lou Ann Tasony, BSN, RN, John Kornet, AA, RN, Allison Murter, MSN, RN, and Brenda Shelton, MS, RN, CCRN, AOCN®, Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins, Baltimore, MD.

Mucositis occurs in 80-100% of patients undergoing hematopoietic stem cell transplant (HSCT). Mucositis ranges from pain and erythema to hemorrhagic ulceration and edema so severe that patients cannot effectively clear their secretions. Patients may require intubation to protect their airway. These patients are at high risk for aspi-
tion and ventilator-associated pneumonia (VAP) due to immunosuppression, damaged mucosa, excessive secretions, and oral bleeding. Studies describe VAP as a common and fatal complication of mechanical ventilation. Evidence-based guidelines suggest continuous subglottic suction is effective in preventing aspiration and VAP.

Applying evidence-based guidelines, continuous subglottic suction via specialized endotracheal tubes (ET) was implemented on the HSCT unit. One patient using this device demonstrated exemplary results. This patient’s care and nursing management of the subglottic ET tube are presented.

The multidisciplinary team began evaluation of ET tubes with subglottic suction in July 2006. Staff evaluated ease of insertion, clinical effects on ventilation and cuff pressures, and the amount and type of drainage from the subglottic port. This exemplary patient had severe mucositis and excessive oral bleeding. Although thorough mouth care is essential for prevention of pneumonia, it is often difficult to perform effectively in a patient with severe mucositis. Over 500mL of bloody drainage was removed by the continuous suction port over the 19 days the patient was intubated. The patient did not develop pneumonia and was successfully weaned as the mucositis resolved despite the patients high risk for aspiration of blood and secretions.

This project demonstrates successful implementation of evidence-based guidelines to improve outcomes for high risk critically ill oncology patients. Secretions that were suctioned from the subglottic port could not have been removed by suction through standard ET tubes and oral care measures. Previous experience with such patients demonstrates a high incidence of aspiration, often with fatal outcomes.

Statistics show that VAP continues to have a high mortality rate. As direct care givers, nurses can make an impact on patient outcomes. Oncology providers involved in the care of mechanically ventilated patients should consider this therapy to prevent pneumonia in critically ill patients with mucositis requiring intubation.

2154
THE ROLE OF NURSE EDUCATORS AS FACILITATORS FOR THE IMPLEMENTATION AND EVALUATION OF EVIDENCE BASED CLINICAL GUIDELINES. Darlene Whyte, RN, Anita Simon, PhD, and Reanne Booker, RN, BScN, Tom Baker Cancer Center, Calgary, Canada.

There has been increasing emphasis that health care decisions should be based on the best possible evidence, ensuring that health care is both effective and efficient which leads to optimal as well as equitable patient care. However, there are concerns that dissemination of evidence to healthcare professionals does not change clinical practice.

The Tom Baker Cancer Center decided to address both the development and the implementation of evidence based practice clinical guidelines to ensure that dissemination of evidence did change practice.

An organizational framework was developed which includes the addition of a Knowledge Management Resource Team (KMRT) and a Decision Support Unit. These two teams provide the methods for evaluating and synthesizing evidence which provides health practitioners and managers with clear direction on how to achieve best clinical practice and stay current with ever-changing knowledge. Part of the nurse educators’ jobs was devoted to support clinical practice teams, consisting of disease specific multidisciplinary practitioners.

Nurse educators became community coordinators within communities of practice, an essential component for implementation of change. In this new role as “tumor group facilitators (TGFs)”, nurse educators liaise closely with tumor groups to facilitate the transfer of knowledge between tumor groups and related health disciplines fostering an evidence-based culture of practice. Nurse educators were educated on facilitation and leadership, knowledge surveillance and evaluation, and, most importantly, on how to obtain consensus and be a successful change agent. Focus groups were formed to develop a framework for successful implementation and evaluation of clinical practice guidelines.

The decision support team assisted in the development of an effective outcome measurement system including performance indicators and data collection methods. These outcomes will help us to understand the influence of our work on the people we serve. We will use the information to improve the effectiveness of our efforts.

Nurse educators found that they were able to take on the additional role of TGF easily and apply newly acquired skills to all aspects of their job. Utilizing nurses for this position within this project has set precedence for the value that nurses can bring to an organization.

2157
MANAGING THE PATIENT AT RISK FOR LUNG CANCER THROUGH CT LUNG SCREENING IN A COMMUNITY HOSPITAL SETTING. Pamela Matten, RN, OCN®, St. Joseph Hospital Regional Cancer Center, Orange, CA; Richard Fischel, MD, PhD, self-employed, CA; Dan Vu, MD, Moran Rowen & Dorsey, Orange, CA; and Siu-Fun Wong, PharmD, FASHP, FGCSHP, Western University, Pomona, CA.

As the most lethal cancer in the world, lung cancer presents an enormous health care challenge. The key to reversing the disease’s lethality may be in evidence-based computerized tomography (CT) imaging in early management of lung cancer. New clinical evidence from the International Early Lung Cancer Action Project (I-ELCAP) suggests that CT screening can detect curable lung tumors. With detection and surgical removal of early lung cancers, 92% of patients may live 10 years.

The aim of this program is to detect early stage lung cancer that is treatable and potentially curable by implementing a low-cost CT lung-screening program in a community hospital setting, focusing on individuals at-risk for developing lung cancer. Cost is a 1-time fee of $125.00. At risk individuals have smoked at least 20 pack years and are at least 50 years of age.

An oncology certified nurse implements the Lung Screening Program, following patients for at least 2 years. At weekly multidisciplinary conferences, the nurse facilitates case presentations of suspicious lung nodules. The core group includes the nurse, a thoracic surgeon, and chest radiologist. When lung cancer or other abnormalities are found, the nurse coordinates care and additional work-ups as needed.

Over a period of 23 months, 245 patients have been screened for lung cancer with 8 positive findings. Six cancers were confirmed NSCLC (50% early stage), one lymphosarcoma, one B-cell lymphoma. Three patients had early stage lung cancer, treated with video-assisted thoracic surgery. The St. Joseph Hospital Lung Program was recognized as a “best practice” model, by the 2005 Advisory Board Company’s RoundTable annual symposium, based on our CT screening approach to early diagnosis.

Community hospital based low-cost CT lung screening programs, led by multidisciplinary teams can maximize the opportunity to detect early stage lung cancer. Finding lung cancer in an early stage can help save lives or improve patient outcomes for lung cancer.

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ASIAN INDIAN WOMEN AND THEIR VIEWS ABOUT BREAST HEALTH. Clara Hergert, RN, MSN, OCN®, APRN, BC, Karmanos Cancer Center, Detroit, MI; and Tsu-Yin Wu, RN, PhD, Eastern Michigan University, Ypsilanti, MI.

Breast cancer is the most frequently diagnosed cancer among Asian Indian women in India. Little is known about the rates of breast can-
cer following immigration to the United States. Only one study, in the United States, has been done to review how Asian Indian women view breast cancer screening practices.

The purpose of this study was to examine the views of breast health among Asian Indian women and to assess their knowledge toward breast cancer screening (i.e., breast self-exam, clinical breast exam, and mammography).

The framework chosen for this study was the Health Belief Model. This study looked at the variables: perceived susceptibility, perceived seriousness, perceived benefit, and perceived barriers related to breast cancer screening.

Sample was recruited from 2 Hindu temples in a Midwest, university-based community. The study group received a pretest, an intervention (educational program), and the posttest all in one day. There was only one study group used in this study. The instrument used for the pretest and posttest was developed using the Health Belief variables related to breast cancer screening. Data analysis was performed using SPSS software to compare pretest and posttest results.

A small percentage (9%) of women reported practicing monthly breast self-exams, whereas just fewer than 50% of the women reported yearly clinical breast exams (46%) and mammograms (47%). Over 50% of the women reported that they did not have the skills/knowledge to perform breast self-exams. After the educational program, the amount of women that stated they would perform monthly breast self-exam increased from 9% to 80% and 100% of the women now felt they had the skill/knowledge to perform breast self-exams. The women also reported increased knowledge about clinical breast exams and mammograms after the educational program, by stating that they would initiate scheduling appointments for both. The study showed that education is the key to helping improve perceived barriers and benefits for the group of Asian Indian women studied. Oncology nurses have the opportunity to provide this education to Asian Indian women.

HEPARIN FLUSHES IN CENTRAL VENOUS CATHETERS: ARE CANCER PATIENTS DIFFERENT? Terry Sylvanus, MSN, APRN, BC, AOCN®, and Jean Harrison, MSN, RN, AOCN®, H. Lee Moffitt Cancer Center, Tampa, FL.

The use of central venous catheters in cancer patients provides convenient access for multiple purposes, but is not without consequences or safety concerns in this population. Heparin flushes have been used to prevent loss of patency, but carry the risk of development of heparin-induced thrombocytopenia/thrombosis, prompting clinicians to speculate about the efficacy of normal saline flushes alone for this purpose.

This review was designed to determine what evidence exists to support the use of dilute unfractionated heparin versus normal saline as a flush solution to maintain central venous catheter (CVC) patency in adult oncology patients.

Two expert oncology nurses reviewed published guidelines, reviews and studies from 1979-2006 located through Pubmed using evidence based practice filters, and through CINAHL using relevant search terms. Selection criteria for inclusion in the review was limited to randomized, prospective, controlled trials of the efficacy of any strength, volume and frequency of heparin flush compared to any volume and frequency of normal saline flush in the prevention of loss of patency or function, or thrombosis of a central venous catheter in adult patients with any cancer diagnosis. Pertinent studies were reviewed and summarized into an evidence table format.

Guidelines available from national nursing organizations about central venous catheter care did not give specific information about flushing practices, nor use in oncology patients. The literature search yielded 468 studies, 102 examined some aspect of heparin or anticoagulant administration and CVC function; five met our rigorous selection criteria. No definitive answer to our clinical question was found.

No studies reviewed provided sufficient evidence as to the superiority of normal saline versus heparin flushes for maintaining catheter patency in cancer patients. Our cancer center’s flushing protocols for CVCs are therefore unchanged. There remains an urgent need for well-designed, randomized, controlled, interdisciplinary research to address this issue in this population.

2161 RONEE: RADIATION ONCOLOGY NURSING ENHANCING EXCELLENCE—EDUCATION OUTSIDE A CLASSROOM THROUGH THE DEVELOPMENT OF A COMPUTERIZED LEARNING PROGRAM. Maureen McQuestion, RN, MSc, CON(C), Princess Margaret Hospital, Toronto, Canada; and Marilyn Haas, RN, PhD, ANP-C, Mountain Radiation Oncology, Ashville, NC.

Radiation oncology nursing (RON) established their role among the interdisciplinary team in the early 1980’s, caring for 60% of oncology patients, yet there were no formal educational training programs. RONs received orientation from physicians or therapists about the technical aspects of radiation therapy (RT) and developed their own nursing care. This type of training is insufficient because patient acuity levels today are higher, requiring skilled nursing care. With rapid technological explosion, this opens opportunities for novel approaches with nursing education. Computer assisted learning (CAL) has shown to facilitate learning and enhance knowledge acquisition through the use of innovative approaches to integrating scientific, technological and nursing knowledge. There are no formal specialized educational programs for RONs, thus the need for development CAL.

The purpose of this project was to develop a comprehensive, in-depth, self-learning computerized program that could teach novice and advanced RONs about the management of patients undergoing radiation therapy.

Expert RONs within the ONS RT SIG were selected to develop RONEE, utilizing an evidence-based approach to educational instruction. Scripts were written, photographs/films taken, powerpoint presentation developed, and final CD video presentation was completed over a 2 year period. Instructional components would include consultation, work-up and staging, the process of simulation, treatment planning and nursing interventions, along with discharge and long-term follow-up guidelines.

This project highlights the development and curriculum of the modules on malignant and non-malignant tumors, and special modules relating to radiobiology, pediatrics, radiopharmaceuticals, and radioprotectants. With over 500 sold, 130 returned evaluations, 75% were staff nurses, 88% were employed in RT, averaging 15 years of experience, passing CEU tests with 95%. All modules were rated > 3.3 (scale 4.0). Participants positive comments included working at their own pace, having in-depth presentations, and enforcing with case studies helped meet their learning needs.

In conclusion, this program reflects an innovative and comprehensive specialized RON education program for independent self paced computer assisted learning to support nurses becoming skilled and knowledgeable in the care of RT patients. Experienced RONs who haven’t received formal training, felt RONEE to be valuable. This example can be a model for other CAL.
CREATING A SELF-LEARNING MODULE ON CANCER-RELATED PAIN.
Cheryl Elsadri, RN, BSN, Karmanos Cancer Center, Detroit, MI.
Approximately 50 percent of cancer patients receiving treatment experience pain; 70 percent of patients with advanced cancer have pain, and 80 percent of these patients rate it as moderate to severe or severe. Pain is often not recognized in cancer patients usually due to inadequate assessment, doctors’ fear of prescribing opiates, and not acknowledging pain as a priority. Many nurses believe that it is not necessary for them to understand pharmacological pain management since it is the “physicians’ responsibility”. Yet, a fundamental nursing responsibility is to advocate for patients and in order to do this oncology nurses must understand the principles of pain in general, cancer pain in particular, and pharmacological management of cancer pain. They are the liaison between the patient and the doctor.

In order to provide this education, a self-learning module (SLM) was developed. It provides a review of the pathophysiology of pain in addition to pain types (especially those related to cancer) and their causes. In addition, an overview of analgesics commonly used for pain in cancer patients and general principles of pain management are discussed.

This presentation will describe how a SLM on the Pharmacological Management of Cancer-Related Pain was developed. It includes the search methods; learning needs assessment approaches; determining the learning outcomes, content, structure, and teaching methods; continuing education units allocation; and test preparation.

A convenience sample of 10 Registered Nurses will complete the SLM and the evaluation form. The evaluations will be analyzed and the appropriate changes will be made to the SLM.

There are many benefits to using SLMs. They are cost effective since they are prepared once (and reviewed periodically) and used repeatedly, without the need for an instructor. SLMs are convenient since the learner can complete them at their own pace and in an environment of their choice. Understanding how a SLM is developed and evaluated will give educators an alternate way of educating nurses.

INCIDENCE AND NURSING MANAGEMENT OF HAND FOOT SKIN REACTION IN PATIENTS TREATED WITH ORAL TYROSINE KINASE INHIBITORS FOR METASTATIC RENAL CELL CARCINOMA.
Suzy Graham, RN, BSN, OCN®, Our Lady of Mercy Medical Center, Comprehensive Cancer Center, Bronx, NY; and Janice Dutcher, MD, Victoria Rosal-Greif, RN, MN, Linda Sacris, RN, OCN®, and Jackson Koo, CCRP, Our Lady of Mercy Medical Center, Bronx, NY.
Sorafenib and sunitinib represent a new class of tyrosine kinase inhibitors (TKIs) that are highly effective in the treatment of patients with metastatic renal cell carcinoma (RCC). Skin reactions such as hand foot skin reaction (HFSR) are clinically challenging adverse effects of TKIs. Educating oncology nurses on the identification, prevention and management of HFSR in patients receiving these novel agents is key to ensuring successful treatment.

The purpose of this presentation is to provide the oncology nurse with insight into:
1. The pathophysiology of HFSR
2. The identification, management and need for early intervention of HFSR
3. Assessment and evaluation of HFSR
4. Nursing management strategies for the prevention and treatment of HFSR

A retrospective chart review of 78 patients with metastatic RCC treated with oral TKIs from June 2005 to November 2006 was conducted. 57 patients were male and 21 female with a median age of 59 years (range 29-80 years). 60 patients received treatment with sorafenib and 18 with sunitinib. Patients were encouraged the frequent prophylactic use of OTC skin emollients, Eucerin or Aveeno. Patient teaching stressed the importance to identify and report skin reactions promptly.

Grade 1-3 HFSR was observed in a total of 18 of the 78 patients (23%). 16 patients received treatment with sorafenib and 2 with sunitinib. Of these, 9 patients developed HFSR within 14 days of treatment initiation. Painful erythema, calluses, peeling and/or blistering of the skin of the hands and/or feet typically represented the skin reactions. Grade 1 HFSR occurred in 5 patients and was managed with topical OTC skin creams Eucerin or Aveeno. Grade 2 HFSR was observed in 6 patients managed by both dose interruption and dose reduction.

HFSR is a potentially dose limiting toxicity of TKI therapy. This project demonstrates the need for early identification and intervention for HFSR. Management guidelines and photographs will be shown to better educate oncology nurses on managing this challenging adverse effect.

DEVELOPING A CRANIOTOMY POST OPERATIVE DISCHARGE INSTRUCTION SHEET: A LESSON IN MULTIDISCIPLINARY COLLABORATION.
Deborah Sendlak, RN, Roswell Park Cancer Institute, Buffalo, NY.
A craniotomy is a frightening experience for both patients and family members. Despite multiple teaching moments regarding postoperative instructions, it is the activities of daily living that patient’s voice concerns about prior to and after discharge. Patients are educated and evaluated by oncology nurses for their ability to provide self-care after discharge from the hospital, but still often express anxiety about what they will encounter at home. In our setting patients also received instructions from surgeons, nurse practitioners, respiratory therapists and physical therapists, but no one discharge document existed to provide a concise and integrated resource.

Providing educational support in the hospital can be fragmented among disciplines so clear postoperative instructions for them to use at home is paramount for their well-being. A minimal amount of printed materials existed for patients being discharged following a craniotomy that focused on step-by-step essential information in one complete document.

The purpose for developing this tool was to provide useful information that can be easily understood by both the patients and their caregivers. The development of this tool from inception to acceptance by all disciplines involved in the care of patients experiencing a craniotomy will be outlined along with samples of the actual tool developed. This tool can be replicated in other settings and for other types of surgical procedures.

Our first step was to review the current educational process and the instructions provided to our patients for them to use at home. We identified that the information provided was often fragmented among the disciplines. Step by step essential information in a complete document was not available. It was quickly identified that we had an opportunity to improve how we prepare this special group of patients for self-care following surgery.

This presentation will outline how the disciplines were involved in the development of a Craniotomy Post Op discharge instruction resource we provide to our patients and the evolution of the process improvement.

ONCOLOGY NURSING FORUM – VOL 34, NO 2, 2007
DEVELOPING AN INFORMATION VISUALIZATION TOOL FOR ORAL MUCOSITIS. Susan Beck, APRN, PhD, AOCN®, FAAN, and Jim Agutter, M Arch, University of Utah, Salt Lake City, UT; William Dudley, PhD, University of Utah College of Nursing, Salt Lake City, UT; Douglas Peterson, DMD, PhD, Neag Comprehensive Cancer Center, Farmington, CT; and Deborah McGuire, PhD, RN, FAAN, University of Maryland School of Nursing, Baltimore, MD.

Oral mucositis (OM) is a common side effect of high dose cancer therapy, and can lead to clinically significant sequelae. Tools to enhance knowledge of the complex trajectory of OM over time could inform both research and clinical practice, particularly in the substantial number of solid tumor patients worldwide receiving chemotherapy.

The aim of this study is to investigate and develop Information Visualization (InfoViz) representations that provide new insight into the complex and multi-dimensional aspects of OM over time. These aspects include anatomic, physiologic and dynamic clinical features of OM (e.g., erythema, ulceration, pain and white blood cell count).

The contemporary pathobiologic model of OM proposes that clinical manifestations of OM are due to a complex dynamic process principally involving oral epithelium and connective tissue. Despite this unifying paradigm, individual trajectories in solid tumor patients have considerable variability due in part to patient-related, therapy-related, and clinical factors.

Development of the visualization employed a user-centered development methodology. This involved domain analysis, schematic design of prototypes, focus groups with potential users, and subsequent refinement of the design. During the domain analysis phase, we conducted and recorded in-depth interviews with 7 prominent experts on OM, representing the fields of oral medicine, nursing, and psychology. The transcripts were analyzed for important themes, clinical variables and specific attributes and processes. Using the information gathered during the domain analysis, several schematic prototypes were developed. These prototypes were then refined during focus group sessions with OM experts.

During domain analysis, we identified the most important objects (e.g. oral mucosa) and operations (cellular destruction) in the chosen domain of OM, the attributes (e.g. erythema) of these objects, and the relationships among objects. These concepts were then encoded visually focusing on the temporal aspect. This approach has the potential to enable clinicians to identify changes in OM over time and to adjust their assessment and therapeutic approaches based on clinically relevant changes. If this application is successful, InfoViz investigations may lead to new insight into complex multi-dimensional processes in oncology practice.

CANCER PREVENTION AND EARLY DETECTION OF GASTRIC CANCER: THE ROLE OF THE EARLY ONSET AND FAMILIAL GASTRIC CANCER REGISTRY. Jennifer Randazzo, RN, Megan Harlan, CGC, MS, Elaine Sheehy, BS, and Manish Shah, MD, Memorial Sloan-Kettering Cancer Center, New York, NY.

Gastric cancer is the second leading cause of cancer-related mortality world-wide. US minority and underserved populations have a significantly worse prognosis that cannot be explained solely by external factors such as diet, co-morbidities, or access to health care. The role that genetics plays in gastric cancer is also not fully understood. Up to 15% of gastric cancer cases are related to an inherited component, of which 1/3 are due to a mutation in CDH1, the genetic cause of Hereditary Diffuse Gastric Cancer. In January 2006, the Early Onset and Familial Gastric Cancer Registry was established at this Comprehensive Cancer Center to compile information on individuals with a personal history of gastric or gastro-esophageal (GEJ) cancer and their at-risk family members. Eligible persons are either ‘Early Onset’ (EOG), diagnosis age < 50, or ‘Familial’ (FGC), one first or second degree relative with disease.

Aim: To prospectively collect epidemiologic data and create a matched tissue and DNA repository, with an emphasis on minority recruitment. With this matched prospective resource we can: identify sporadic CDH1 mutations, explore for other genes associated with hereditary gastric cancer via linkage studies, explore for a trigger to developing the disease in CDH1 mutation carriers, and study the linkage between CDH1 mutations and other malignancies.

Method: All who agree to participate are asked to complete a family history and gastric cancer questionnaire, and to refer family members for participating. This questionnaire includes personal medical history and dietary habits. After enrollment, patients may choose to contribute a blood and/or tissue sample for the tissue repository and meet with a genetic counselor to discuss the risks, benefits and limitations of genetic testing.

Since establishing the registry, 83 participants have enrolled, 59 of which are EOG and 24 that are FGC. We have opened a third cohort to include those not eligible for either of the two primary cohorts. This group is our ‘control arm’ and consists of 7 members thus far. The information gathered by this registry can be applied to screening and prevention guidelines which will impact the overall healthcare of individuals at high-risk.

PREVENTION OF VAGINAL STENOSIS AFTER PELVIC RADIATION. Ethel Beeling Law, RN, MA, OCN®, and Lauren Ecock, R.N, BSN, Memorial Sloan-Kettering Cancer Center, New York, NY.

Pelvic radiation is an essential component of the treatment of colorectal and gynecologic cancers. Women who receive radiation will experience varying degrees of vaginal stenosis, beginning as early as four weeks and up to two years after radiation. The diminished dimension of the vagina hinders a thorough pelvic exam for tumor surveillance and the ability to have vaginal penetration. Patients’ quality of sexual life may also be affected by persistent dyspareunia, vaginal dryness or bleeding. Studies indicate that dilator use is effective to minimize stenosis. Nurses play a key role in educating patients about its use and encouraging compliance.

This abstract reviews the pathophysiology and presentation of vaginal stenosis and describes interventions patients can take to minimize its severity. Conflicting issues related to vaginal stenosis will also be discussed. At this NCI-designated cancer center, patient education is focused on maintaining vaginal health after treatment. The standard is to start life-time dilator use four weeks after radiation is completed. The radiation oncology nurse provides a dilator kit and a fact card on its use. Patients are instructed to use the dilator three times a week for ten minutes at a time. Patients are also instructed on the use of moisturizers and lubricants and on how to perform Kegel exercises. Nurses refer patients to the Women’s Health Program to address sexuality issues. In reviewing the evidence about vaginal stenosis, issues that are discussed include: the optimal timing to begin dilator use, the frequency needed, and the use of topical estrogen.

By providing an understanding of the rationale for using a dilator and instilling confidence in its use, patients will be more likely to comply, minimizing stenosis, alleviating vaginal symptoms, and enabling them to resume sexual intercourse.

Nurses can apply this information in their practice to improve education of patients who have received pelvic radiation. In addition, it is hoped that nurses will be encouraged to undertake research to
learn more about how to prevent and treat this problem. As an example, we will discuss a study we will be conducting looking at variations in teaching techniques and frequency of use.

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DESIGNING A CHEMOTHERAPY PATIENT EDUCATION CLASS FOR MULTIPLE CLINICAL SITES AT AN NCI-DESIGNATED CANCER CENTER. Patricia Pohland, RN, BSN, OCN®, Beth Westbrook, RN, BSN, OCN®, Debra Woo, RN, BSN, OCN®, Laura Balint, RN, Trish Gallagher, RN, BSN, and Deb Simo, RN, BSN, OCN®, University Hospital of Cleveland, Ireland Cancer Center, Orange Village, OH.

Providing high-quality, comprehensive education to the patient beginning chemotherapy is essential to achieving good self-care outcomes. However, creating and implementing an organized, consistent educational approach across multiple outpatient clinical sites of an NCI-designated Comprehensive Cancer Center is challenging. Oncology nurses noted several barriers that contributed to ineffective patient education: the absence of scheduled nursing time for education, various teaching methods utilized by nurses, and inconsistent instructions. Patient-related barriers included lack of patient time and high levels of anxiety.

The purpose of this project was to design and implement a formal, evidenced-based chemotherapy education class for patients and their significant others to optimize the learning experience and standardize education across settings.

Six oncology staff nurses met weekly over six months to define goals and processes required to create a formal education experience for patients. Consideration was given to logistics including the setting, learning materials, length of class time, and training of oncology nurse instructors. Evidenced-based resources were used to design the curriculum, which reviewed basic concepts of chemotherapy, side effects and symptom management. A PowerPoint presentation and a chemotherapy class folder, including specific symptom management tools, were developed to reinforce key messages. Projected implementation of the class is January 2007.

There were multiple evaluation steps throughout the project. Nurses critically reviewed course content and print materials for consistency with ONS evidenced-based practice guidelines. Further feedback of the course content was obtained from a focus group, physicians, other oncology nurses within the hospital system and the cancer center’s patient education committee. A patient satisfaction survey was designed to aid in future refinement of the class.

Although challenging, implementation of a chemotherapy class will benefit patients by allowing education to occur in a timely and relaxed manner. The use of evidenced-based resources not only facilitated achieving consensus on class content among oncology nurses, but also assured establishment of a high quality, comprehensive standard for patient education across multiple clinical sites.

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SOUTHERN JERSEY SHORE CHAPTER OF ONS RECOGNIZES LUNG CANCER AWARENESS MONTH WITH INAUGURAL EVERY BREATH COUNTS WALK FOR LUNG CANCER AWARENESS. Michele Gaguski, MSN, RN, AOCN®, APNC, Ocean Medical Center, Brick, NJ; Sharon Payran, RN, OCN®, and Louise Baca, MSN, RN, Atlanticare Regional Medical Center, Pomona, NJ; Lisa Aiello-Laws, MSN, RN, AOCNS, Shore Memorial Cancer Center, Somers Point, NJ; and Susan Wilson, MSN, RN, AOCN®, APN-C, HOPE Community Cancer Center, Marmora, NJ.

In 2006, an estimated 162,460 deaths occurred from lung cancer. Lung cancer is the leading cancer killer in both men and women in the United States and causes more deaths than the next three most common cancers combined (colon, breast and prostate). In our chapter service area we discovered that we have higher rates for lung cancer than in the rest of the state. Given this statistic coupled with the limited funding for lung cancer, the chapter decided to develop the Every Breath Counts Walk for Lung Cancer Awareness Organization.

Our goal is to make a difference in our communities by bringing about a heightened sense of awareness to lung cancer while raising funds for 1) Lungevity Foundation and 2) the South Jersey Cancer Fund. These organizations fund lung cancer research and provide assistance to cancer patients.

A committee was formed which included oncology nurses, hospital administrators, lung cancer survivors and their families, local teenagers and a representative from the NJ Cancer Education and Early Detection (CEED) Program. In January 2006, the committee began to meet regularly and determined a strategic plan, designed a logo and addressed marketing by developing brochures and posters that were distributed throughout our service area; including chapter meetings. Several hundred letters seeking donations were distributed to businesses.

On November 18, 2006 the event took place with over 100 walkers, including the Mayor, our Congressman, and a local thoracic surgeon. The dignitaries took this opportunity to speak about the need for lung cancer research. We sold “Moonbaby” pins which are created by a local business and made for purposes of fund raising. We had T-Shirts and chocolate lollipops made with Lung Cancer Facts printed on the ribbon. The Walk raised over $10,000. The proceeds will be donated to 1) The Lungevity Foundation which funds research designed to treat and cure lung cancer, and 2) the South Jersey Cancer Fund, which committed to earmark the funds for lung cancer patients in our community.

This is a testament to the power that oncology nurses have to make a positive difference in their community.

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CHEMOTHERAPY OCCURRENCE REPORTING . . . OR NOT. Laurie Dohnalek, RN, MBA, CNA, Linda Miller, RN, MSN, OCN®, Judy Westcott, RN, OCN®, and Sabrina Bielefeldt, RN, BSN, OCN®, Georgetown University Hospital, Washington, DC.

Six years ago, the Institute of Medicine (IOM) published a well known report on medical errors that emphasized the need for changes in cultures and systems to improve safety. This document prompted major initiatives to improve patient well-being however healthcare continues to lag behind other fields in its progress toward enhancing safety. In response to the continued imperative on patient safety, Georgetown University Hospital’s (GUH) Nursing Division completed the Agency for Healthcare Research and Quality (AHRQ) Culture of Safety Survey in June 2006.

The results of this survey revealed a disparity between actual medication events and the frequency with which they are reported. In the oncology setting, deviations in chemotherapy practice and policy do occur, despite very few reports generated from nursing. These findings prompted the need to evaluate nursing recognition of chemotherapy occurrences, culture of occurrence reporting and barriers to occurrence reporting in the oncology environment at Georgetown University Hospital.

This will be accomplished with a self report instrument developed at Georgetown, validated by experts in the oncology field and based on the AHRQ and IOM framework. This non-experimental, exploratory study will include a population of inpatient and outpatient chemotherapy trained nurses with a sample size of approximately 50. Of specific importance is identifying nurses’ perception of what
constitutes an occurrence and the reasons for inconsistent documentation. The frequency of GUH reporting and national reporting will be compared, along with demographic data. The values and beliefs of the chemotherapy-certified nursing staff will be evaluated to understand the plan needed to influence change.

After the data are collected and analyzed, based on the findings, interventions will be developed which address the barriers and may include the following: increasing awareness, nursing education, occurrence tracking and support for reporting. The Chemotherapy Occurrence Survey will be retaken for comparative purposes. In addition, comparison of occurrence reporting by nursing before and after these interventions will be undertaken.

The literature search revealed information on medication incident reporting, validity and errors involving chemotherapy but little is available on this topic. Additional research on this nurse-sensitive indicator, chemotherapy occurrence reporting, is essential to improve safety.

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"SHOW THEM THE EVIDENCE!" SUPPORTING PATIENTS WITH THE DECISION-MAKING PROCESS. Leah Scaramuzzo, MSN, RNC, AOCN®
Cancer Institute of New Jersey, New Brunswick, NJ.

Research shows that knowledge empowers patients’ decision-making and those that take part in healthcare decisions are more likely to have better outcomes. Literature supports that cancer patients want information and engage in information seeking behavior. Yet, where can they go for assistance when searching for credible, in-depth cancer information in understandable terminology? Many discover that public and hospital libraries do not meet these needs, the Internet is very overwhelming, and oncology professionals often have time constraints that prevent them from providing in-depth education.

Led by an oncology nurse educator, the Resource and Learning Center (RLC) was developed at an outpatient NCI-designated Comprehensive Cancer Center, with the goal of providing patients/families with a myriad of evidence-based education resources about cancer prevention, diagnosis, treatment, and symptom management. The RLC allows patients/families to ascertain information at any point in their care, capitalizing on principles of readiness to learn. Patients/families assist with identifying learning barriers and their best learning strategies.

After conducting a needs assessment of patients/families, completing literature reviews, and networking with other centers, a proposal was developed and grant funding for the RLC was secured. A multidisciplinary patient education committee provided guidance and identified sources of best evidence. The RLC contains computers with health education software and reputable Web sites, consumer health books, medical reference books, audio/visuals, journals, newsletters, brochures, and a designated area where educational/psychosocial classes are held. A medical librarian is on staff to assist with information requests. Healthcare practitioners refer patients to the RLC by using a “Prescription for Learning” pad.

More than 1200 visits occurred during the first year of RLC operation. 100% of those completing evaluations indicated that the information obtained helped them make healthcare decisions and improved communication with their healthcare team. Based on oncologists’ requests, tumor specific “Prescriptions for Learning” are currently being developed.

Oncology nurses have unique opportunities to develop patient education strategies and programs and enhance their professional development and contributions to oncology care. Findings support that the development of consumer libraries assists patients/families with the information search process enabling them to become fully informed and use the evidence to support their decision-making.

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THE ONCOLOGY SERVICE LINE’S USE OF SIX SIGMA IN THE COWDERY PATIENT CARE CENTER: CREATING STANDARDIZED PROCESSES TO IMPROVE PATIENT FLOW, IMPROVING STAFF AND PATIENT SATISFACTION. Karen Roessler, RN, and Deb Dydyk, BS, MA, BSN, RN, C, Nebraska Medical Center, Omaha, NE.

The Cowdery Patient Care Center (CPCC) is an outpatient treatment center with approximately 110 patient visits daily. The majority (85%) are Oncology/Bone Marrow Transplant patients with appointments ranging from 30 minutes to 10 hours. In addition to scheduled patients, the CPCC accommodates unscheduled, urgent care visits for problems such as nausea/vomiting, pain, or fever. Staff struggled with patient flow and timeliness of treatments; patients/families expressed concern with delays.

The Cancer Service Line initiated a Patient Flow Project using the defined, measure, analyze, improve, and control (DMAIC) process of Six Sigma to improve patient flow and reduce delays. The purpose was to identify causes of delays, identify solutions, and standardize work practices to eliminate delays while continuing to provide safe, competent care, and improve satisfaction.

Process experts including RN’s, techs, clerks, and managers were chosen to participate on this project. The team used the DMAIC process to identify factors contributing to patient flow problems and issues contributing to delays in treatment start times. (1) Data were collected to validate if the factors identified were supported. (2) The team identified improvements which could be made, (3) implemented improvements, (4) collected further data, and if the change was successful, (5) developed a control plan to ensure it would be sustainable.

Surveys had indicated patients were willing to wait an average of 22 minutes for treatments to start. When the project started in 2004, 29% of the treatments started within 22 minutes; in 2006, after implementing the changes, this increased to 78%. Changes implemented included adjusting the scheduling template and process, separating out the short appointments, changing the check in process, and altering the role of the charge RN to primarily monitor flow and triage. Data collection continues on a monthly basis.

Nursing staff are directly involved in patient care and play a pivotal role in patient outcomes and care efficiency. Providing staff with tools and resources to improve care efficiency and involving them with identification of solutions facilitates improved staff and patient satisfaction. Nurses will be able to use the information in this presentation to guide similar improvement projects in their clinical settings.
Changes to institutional supply of toothbrushes and rinse agents were requested based on the evidence, as part of a new oral care protocol. Cost analysis and potential benefit were presented to several committees, and finally approved. Nursing education presented the greatest challenge. A new assessment tool (CTCAE V.3) and oral care protocol were presented at a series of in-services. An animated PowerPoint presentation enabled nurses to grade varied photos of mucositis and compare their assessment with the actual toxicity grade for self-directed learning. Common terms were defined and clarified to increase nurses’ fluency regarding mucositis. Videos were developed summarizing the evidence, new tool, and oral care protocol. These were used for unit based in-services and placed on the intra-net to target nurses at regional sites whose education presented a geographic challenge. These videos have been incorporated into annual competency review and orientation for all nurses. Advanced practice nurses were recruited as trainers and resources. A single patient education booklet reflective of the new oral protocol replaced three previous documents. Noted challenges included maintaining literacy parameters and utilizing feedback from expert review.

Mucositis assessment and management are documented on multiple forms spanning this institution. Arduous revisions were necessary to reflect the new mucositis grading system. Documentation reviews and practice surveys will discern impact on nursing practice.

Promoting development of evidence-based practices has become conventional at many institutions. However, implementing these changes proved more complex than initially anticipated. Each challenge was met with different strategies for accomplishing the goal. Communication, flexibility, and cooperation proved imperative to successful implementation of this practice change.

2187
SWEET’S SYNDROME. Jennifer Martin, RN, BSN, OCN®, John's Hopkins Hospital, Baltimore, MD.

Sweet’s syndrome, otherwise known as acute febrile neutrophilic dermatosis, is a rare disorder and potential complication of G-CSF administration. Though the disease pathophysiology is not entirely understood, an underlying neutrophil-mediated hypersensitivity reaction is believed to play a central role. Approximately 20-25% of patients with Sweet’s syndrome have an underlying, typically hematologic malignancy. Sweet’s syndrome management poses unique practice issues for the oncology nurse.

This presentation will educate nurses in the clinical presentation, identification and management of Sweet’s syndrome by looking at different case studies. Early identification, intervention and treatment applications are necessary to effectively heal the patient while diminishing their risk for infection and controlling pain.

The nursing care matrix includes early identification of lesion manifestations, ensuring appropriate dermatological and wound care consults, administration of suitable treatments and symptom management. While standard medication therapy is corticosteroids, other documented effective treatments include potassium iodide, dapsone, indomethacin, colchicine, and cyclosporine. Skin biopsy confirms the diagnosis of Sweet’s syndrome, with rapid improvement in both symptoms and dermatological abnormalities after initiation of systemic steroid therapy. Antibiotic treatment proves ineffective; therefore proper diagnosis is critical for appropriate patient management. Appropriate wound care performed by nursing is imperative to preventing infection. Pain control also remains a priority in these patients.

Early identification of this rare complication and appropriate treatment applications are key in managing Sweet’s syndrome. Monitoring infectious complications, effective pain management interventions and the administration and response to the poly-pharmaceuticals are important nursing outcome measures that will facilitate treatment planning and recovery.

The implications of Sweet’s syndrome for oncology nurses are significant. While administration of corticosteroid therapy in malignancy-associated Sweet’s syndrome often promptly resolves symptoms and lesions, early identification is important. In addition, identification of Sweet’s syndrome recurrences could also be indicative of recurrence of the malignancy. It is necessary to distinguish Sweet’s syndrome from other skin disorders, such as herpes simplex and varicella zoster viruses or leukemia cutis, to avoid unnecessary use of antimicrobial or other therapies. Sweet’s syndrome practice findings must be added to the growing body of oncology nursing symptom management evidence to guide further nursing practice.

2188
CASE STUDY: LEUCOVORIN HYPERSENSITIVITY, MORE COMMON THAN YOU MIGHT THINK. Mary Schumann, RN, MA, AOCN®, Memorial Sloan-Kettering Cancer Center, New York, NY.

Many of the chemotherapy/biotherapy agents that are used in the treatment of cancer have the potential to cause hypersensitivity reactions. Intravenous Leucovorin Calcium (LV), or folinic acid, has been used in the treatment of gastrointestinal cancers for more than 50 years. Hypersensitivity/anaphylactoid reaction is listed as a rare, but possible side effect by the manufacturer and multiple drug references, and may occur with either oral or parenteral administration. A thorough review of the literature revealed only one documented description of an anaphylactoid reaction to LV.

LV is used in combination with agents known to cause hypersensitivity reactions. The purpose of this presentation is to educate oncology nurses to consider seemingly benign drugs, such as LV, as the causative agent of a hypersensitivity reaction. A case study will be presented to illustrate this point.

A multidisciplinary group with representatives from nursing, pharmacy, and physicians was formed that undertook a retrospective review of Adverse Drug Reporting (ADR) forms as well as the corresponding patient charts of patients receiving 5-FU/LV containing regimens from January 1 to December 31, 2004.

From this review, a cluster of symptoms characteristic of a reaction to LV were determined. A total of six patients felt to have had a reaction to LV were identified. As a result of our findings, oncology nurses have been educated to recognize LV as an agent capable of causing hypersensitivity, and physicians are now considering discontinuing the LV in patients who have exhibited this symptom cluster rather than routinely changing the treatment regime.

2189
DEVELOPMENT OF AN INNOVATIVE TOOL TO STREAMLINE HEALTH EDUCATION FOR CHILDHOOD CANCER SURVIVORS. Wendy Landier, RN, MSN, CPNP, CPON®, Karla Wilson, RN, MSN, FNP-C, CPON®, Kelly Franklin, CRA, CCRP, Liton Francisco, BS, CCRP, Seira Kurian, MD, MS, MPH, and Smita Bhatia, MD, MPH, City of Hope National Medical Center, Duarte, CA.

Most childhood cancer survivors are at risk for late effects related to their cancer treatment, many of which can be serious or life-threatening. Therefore, a vital aspect of nursing care for this vulnerable population includes patient education regarding the importance of targeted health screening, protective health care interventions, and/or modification of health behaviors in order to allow for early detection or prevention of late complications.

A wealth of patient education materials for childhood cancer survivors is now available from the Children’s Oncology Group. These
materials provide comprehensive information regarding health risks and health protective behaviors and are specifically designed to accompany the Children’s Oncology Group Long-Term Follow-Up Guidelines (available at www.survivorshipguidelines.org). Although we have found that these materials significantly enhance care provided in our long-term follow-up program, we have also found that their length and depth may present challenges to clinical application, particularly for patients with limited reading abilities or language barriers.

To address this need, the City of Hope Childhood Cancer Survivorship Program has developed an innovative template that summarizes key information from these educational materials. Our template is arranged by system (e.g., ocular, auditory, cardiac) in modular format and includes visual cues (icons) and simple text to assist patients with retention of key content. By using information from our clinic’s Microsoft Access® database, the nurse is able to use the template to easily generate a customized teaching tool for each survivor based on their treatment history. In order to meet the needs of our patient population, this teaching tool can be generated in both English and Spanish.

The effectiveness of this innovative tool will be evaluated by determining patient adherence to recommended health screening and their understanding of recommended health practices.

Childhood cancer survivors are heterogeneous in terms of age, diagnoses and treatment history. The nurse must therefore provide health education that is comprehensive yet individualized, memorable enough to impact patient recall and influence health behaviors, and streamlined enough to address major health risks in a reasonable timeframe. Use of this innovative teaching tool can assist in accomplishing these goals.

2191 KOREAN IMMIGRANT WOMEN’S PERCEPTIONS ON BREAST CANCER SCREENING PRACTICES: A COMPARISON WITH THE HEALTH BELief MODEL. Eunyoung Suh, PhD, FNP, RN, Seoul National University, Seoul, Korea.

In this multicultural society, deciphering cultural health beliefs of a minority population is the first step to eliminate ethnic health disparity. Although the number of KIW remarkably grows each year and the incidence of breast cancer also increases, no study to date has investigated KIW’s in-depth perceptions with regard to breast cancer screenings and has compared their traditional health beliefs with the variables of the HBM.

Korean immigrant women (KIW) in the U.S. reported far lower breast cancer screening rates than women in general. Their cultural health beliefs are assumed to play an important role in performing the western screening procedures. This study was aimed to investigate KIW’s perceptions towards breast cancer screenings qualitatively and to compare the findings with the variables of the Health Belief Model (HBM).

Korean immigrant women (KIW) in the U.S. reported far lower breast cancer screening rates than women in general. Their cultural health beliefs are assumed to play an important role in performing the western screening procedures. This study was aimed to investigate KIW’s perceptions towards breast cancer screenings qualitatively and to compare the findings with the variables of the Health Belief Model (HBM).

Three theoretical underpinnings of this study include symbolic interactionism, the meta-concept of cultural competence, and a concept of Korean womanhood.

Using the Grounded Theory methodology, twenty KIW, age between 20 and 81, were interviewed two times consecutively in Korean language.

Data Analysis: The qualitative data was transcribed and analyzed using the constant comparison technique. The first level coding was carried out in Korean in order to preserve any Korean culture-embedded expressions or nuances. English translation occurred from the second level coding constantly comparing the contextual meanings between two languages.

The overriding theme was “getting a cancer-free sentence” which indicates that KIW are aware of and have utilized breast cancer screenings but used them only to approve their cancer-free status. The reason why they do not maintain the practices attributes to their traditional Korean health beliefs, which is discord with western logical reasoning regarding breast cancer screening. In addition, KIW’s perceptions on clinical breast exam and mammography are culturally embedded, thus, generate KIW’s non-adherence to the western procedures. The comparisons of these findings with the variables of HBM were discussed. This study shed lights on future nursing research how to explore minority populations regarding their traditional health beliefs related to western medical practices and to reconstruct the standpoints of western health care providers.

2192 IMPROVING NURSE RETENTION THROUGH A COMPREHENSIVE ONCOLOGY ORIENTATION PROGRAM. Colleen O’Leary, RN, BSN, OCN®, Barbara Holmes Gobel, RN, MS, AOCN®, and Lesley Vancura, RN, MS, Northwestern Memorial Hospital, Chicago, IL; Valerie Smith, RN, BSN, OCN®, HPON, Northwestern Memorial Faculty Foundation, Chicago, IL; and Sarah Witt, RN, BSN, OCN®, and Yvette Vo, RN, BSN, OCN®, Northwestern Memorial Hospital, Chicago, IL.

The RN vacancy rate will be 20% with an estimated shortage of one million nurses by the year 2020. Nurse turnover is a costly problem that will continue as healthcare faces this shortage. These costs are both financial and patient centered. The cost of replacing a nurse is 1.5-2.5 times the nurse’s annual salary putting financial strain on institutions.

Group cohesion and satisfaction with work, including feeling confident with skills are the greatest predictors of a nurse’s intent to stay in their institution. A program focused on development of critical thinking skills, patient care management and enhancement of self confidence will positively affect nurse retention rates and patient outcomes.

The Fundamentals of Oncology Nursing (FON) program is a comprehensive 16 week program addressing psychosocial issues, critical thinking, and skill acquisition. Each class includes a discussion addressing the psychosocial issues faced by nurses, as well as instructor led modules. Lab time is included in some modules. Classes are held on a continuous rotating basis. Continuing education credits (CEUs) are awarded for each module. After completing the program, enough CEUs will have been obtained to qualify for the OCN exam. An evaluation is done at the completion of the program.

Evaluations rate areas of logistics, critical thinking skills/patient care management, self confidence and retention. All areas were rated on a Likert scale of 1-5. Scores ranged from 3.2 – 3.8 with an average of 3.7. The yearly goal for nurse turnover is 9 or below. Prior to implementing the FON program, the turnover rate was 10. Since beginning the program the turnover rate is 4. These numbers do not clearly identify if someone leaving did or did not go through the program. This could affect the accuracy of the numbers. Nurses were able to identify that having this program helped in their decision to stay. Further study should be done to find any correlation between the program and improved patient outcomes.

The Fundamentals of Oncology Nursing program addresses the development of critical thinking skills, patient care management and improvement of self confidence and affects job satisfaction and retention of nurses in our institution.

2193 ONCOLOGY NURSING CERTIFICATION: WHERE WE ARE AND WHERE WE NEED TO GO. Carlton Brown, RN, AOCN®, The Geneva Founda-
tion, Lakewood, WA; Lori Nicholson, Colorado Springs, CO; and Julie Ponto, RN, AOCN®, APRN-BC, Winona State University, Rochester, MN.

Since its creation more than twenty years ago, the Oncology Nursing Certification Corporation (ONCC) has made significant advancements in the development, administration, and evaluation of certification programs for oncology nurses. ONCC currently develops and administers certification programs in basic adult and pediatric oncology and advanced certification for oncology clinical nurse specialists and oncology nurse practitioners. Over 24,000 oncology nurses hold one of five credentials offered by ONCC.

The purpose of this presentation is threefold: 1) explore the 20-year growth of certification in oncology, 2) describe the geographical distribution of oncology certified nurses, and 3) summarize the results of a recent national survey on the perceived value of certification and future research questions of importance to nursing certification.

This presentation will use the unique approach of presenting a series of maps showing the distribution of oncology certified nurses compared to the location and distribution of other relevant data such as Magnet hospitals, ONCC Advocates, ONS members, and RNs nationwide. Results of a recent American Board of Nursing Specialties (ABNS) survey examining the value of certification will be introduced. The ABNS survey, conducted with ONCC participation, was administered to a national sample of certified and non-certified nurses and a small sample of nurse managers. Study results include the perceived value of certification; the barriers, benefits and rewards of certification; and the impact of certification on lost workdays and retention. Responses from oncology nurses will be highlighted and compared to those of respondents in other specialties. In addition, this presentation will identify exciting future opportunities within ONCC in the areas of research.

2194
CREATING FUTURE ONCOLOGY NURSES THROUGH DIVERSITY, OUTREACH AND MENTORSHIP: THE ONCOLOGY NURSE MENTORSHIP PROGRAM. Kelly Brittain, RN, MSN, Karen Goldman, RN, MSN, AOCN®, Denise Henderson, RN, MSN, CHES, Carmen Stokes, RN, MSN, FNP, and Elizabeth Galvin, RN, MSN, AOCN®, Karmanos Cancer Institute, Detroit, MI.

 Concurrent with the general nursing shortage there is the shortage of nurses interested in pursuing oncology nursing as a career. In 2004, the Barbara Ann Karmanos Cancer Institute developed and implemented the Oncology Nurse Mentorship Program (ONMP) to address the current and future need for more oncology nurses and the projected need for a more diverse staff of oncology nurses. The program is a partnership between the Detroit Public Schools, United Way of Southeastern Michigan and a local banking institution.

The purpose of the Oncology Nurse Mentorship Program (ONMP) is to increase the number of Detroit youths interested in pursuing oncology nursing careers. The ONMP provides high school juniors and seniors a mentored nursing experience at the Karmanos Cancer Center. The ONMP provides students with an oncology nurse mentor and a 6-week, 4-day per week paid experience providing exposure to oncology nursing through rotations on the nursing units and outpatient chemotherapy, learning basic nursing skills, as well as didactic presentations from various oncology nurses. Eighteen students have completed the program.

Short-term goals were measured by competency in basic infection control, execution of basic nursing skills, assessment of basic cancer knowledge and mentoring experience satisfaction. Since 2004, 100% of the students have attained the short-term objectives. The long-term outcomes have 50% of the students leveraging this opportunity to enhance competitiveness for admission to undergraduate education programs, 50% of the students entering and graduating from an accredited nursing program and as an oncology nurse, the former student seeks opportunities to mentor other students or oncology nurses. To date, 88% of the college eligible students are attending college. 57% of the students are either completing prerequisites for nursing or are in a nursing program and are interested in oncology nursing upon graduation, and 28% have chosen other health care careers.

Programs for high school students, like the ONMP, have far reaching implications in proactively addressing the oncology nursing shortage and diversity issues. The ONMP incorporates education, outreach and mentorship and reaches students at a critical time in their selection of careers and brings light to oncology nursing a relatively unexplored area of nursing.

2195
HOW MUCH BLOOD IS ENOUGH? AN EVIDENCE-BASED STUDY ON THE MINIMUM BLOOD VOLUME REQUIRED FOR LABORATORY TESTS. Wanda Rodriguez, RN, MA, CCRN, Doreen McCarty, BSN, RN, CPAN, AnnMarie O'Donnell, RN, Joyce Kane, MSN, RN, CCRN, Stephanie Nolan, BS, RN, and Cristina Carlse, MA, RN, CCRN, Memorial Sloan-Kettering Cancer Center, New York, NY.

Frequent blood sampling for laboratory testing can be an unnecessary source of blood loss in the critically ill oncology patient. The increased number of analytes measured combined with increased frequency in testing and easier collection with arterial and venous catheters can directly lead to iatrogenic anemia.

As critical care oncology nurses we recognized our role in performing the majority of these tests. We wanted to seek preventive strategies to minimize excessive blood loss and decrease the patient’s risk for anemia.

An evidence based review of the literature was conducted to determine the minimum blood volume required to run selected lab tests. A total of 26 articles from CINAHL, PubMed, MEDLINE, Google, The Cochrane Library, and Evidence Matters were reviewed. There were a limited number of meta-analysis, randomized experimental design, quasi-experimental and non-experimental studies related to blood conserving mechanisms. Expert opinions and guidelines were evaluated. Committee members from the PACU and ICU ranked the evidence based on the Stetler Model.

The current evidence supports using smaller volume vacuum collection tubes for specified laboratory tests such as troponin and basic metabolic panel. The committee concluded that blood volume needed to perform chemistry tests in our departments could be reduced by half. In PACU and ICU this lead to the use of the smaller plastic 4ml tubes versus the larger 8ml glass tubes. In addition, the smaller tubes are less likely to cause hemolysis, due to less vacuum inside the tube.

Current limitations to applying the evidence from this review consist of restricting the change to critical care areas. This is primarily due to the excessive number of “add on” tests required on the inpatient units. However, this is undergoing further discussion and exploration.

Moving forward we will track blood product usage, specifically RBC transfusions, in an attempt to determine the success of this new practice.
A multidisciplinary task force made up of oncology services professionals, physicians, receptionists, patient schedulers, and the clinic business manager was formed. Our AIM statement was to improve the patient phone call experience through the use of a more effective messaging system and process. We voiced our commitment to excellent patient care, patient satisfaction, efficient use of resources, and teamwork.

Multiple problems with the existing system were identified and solutions were developed. Call volume was addressed by implementing an automated routing message that directed specific, non-urgent calls (i.e. scheduling an appointment) to the appropriate staff. A process was established to distinguish urgent from non-urgent calls. It was determined that non-urgent calls would be answered within 24 hours, and an algorithm to ensure rapid response to urgent calls was developed. A customized clinic phone directory listing services, personnel, and contact numbers was provided to patients. Providers were encouraged to phone patients as soon as possible with key results and treatment recommendations as a proactive effort to reduce calls. The team also recognized that superior telephone service would require ongoing assessment and recommended that a standing committee remain in place.

After implementation of these procedures, metrics of telephone service showed a 44.7% reduction in the abandoned call rate and a 32.8% reduction in the average speed to answer calls. Subjectively, we observed improved teamwork and staff satisfaction. Patient satisfaction data is being collected.

The involvement of key stakeholders resulted in improvements in our telephone messaging system. This has permitted all clinic staff to better integrate telephone requests for service into their regular daily workflow. Providing patients with excellent phone service requires an ongoing focus. A dedicated team is essential to monitor and assess an existing phone system so that deficiencies can be recognized and corrected.

2199
A MULTIDISCIPLINARY APPROACH TO SAFE CHEMOTHERAPY ADMINISTRATION—OVERSIGHT IN AN NCI-DESIGNATED CANCER CENTER. Wendy Miano, DNP, MSN, RN, AOCN®, Ireland Cancer Center, Cleveland, OH.

Patient safety is an intrinsic value at University Hospitals Case Medical Center (UHCMC). The Institute for Safe Medications Practices (ISMP) provided an onsite proactive risk assessment at UHCMC in April 2006. The Ireland Cancer Center at UHCMC comprises cross services and multiple settings in ambulatory and inpatient services for children and adults. ISMP’s recommendations has encompassed pediatric and adult chemotherapy practices and processes, with an emphasis on communication.

A multidisciplinary task force made up of oncology services providers was convened with medical and nursing leadership. ISMP recommended a workable process to communicate appropriate oncology patient information (chemotherapy protocols, treatment date(s), and response to treatment), both Inpatient Unit to ICC Ambulatory Unit and ICC Ambulatory Unit to Inpatient Unit.

In the absence of an integrated electronic health record, a manual procedure for communicating and documenting inpatient chemotherapy (adult and pediatric) in the Ireland Cancer Center (ICC) Ambulatory Unit medical record has been implemented. To address communication of ICC ambulatory chemotherapy given to the inpatient setting, an information technology consultant is developing a ‘Chemotherapy and Oncologic Agents Administration Report’ (tied to current Clinical Physician Order Entry computer system).

An audit specific to increasing communication of inpatient chemotherapy to ICC Ambulatory Unit has been conducted. Given the two-fold process in adult practice, inpatient chemotherapy MD orders filed in ICC medical record reflected a 90% successful compliance. Documentation of inpatient chemotherapy given on the ICC chemotherapy flow sheet reflected 70% successful compliance. The pediatric inpatient chemotherapy given documented in ICC Ambulatory medical record was 70% compliant in first chart audit. Pediatric nursing staff education and reinforcement of documentation contributed to a 90% successful compliance in the second audit. Ongoing staff education and audits will continue with a benchmark of 90% successful compliance.

Instilling a culture of patient safety across disciplines as it relates to overall oversight of chemotherapy administration is our primary focus. Communication of chemotherapy and oncologic agents given in both ambulatory and inpatient settings represents a complex challenge. ICC’s Oncologic Services Medication Quality and Safety Task Force will continue to champion initiatives specific to patient safety, quality, and improved communication across services.

2200
CREATING A COMPREHENSIVE STAFF DEVELOPMENT PROGRAM IN A NEW CANCER CENTER. Carol Bletcher, RN, MS, AOCN®, APNC, and Jeanette Barefoot, RN, MSSL, OCN®, Trinitas Comprehensive Cancer Center, Elizabeth, NJ; and Norma Bellarmino, RN, BSN, Trinitas Hospital, Elizabeth, NJ.

With the opening of a new Cancer Center our intent was to create a work culture in which nurses are able to practice autonomously within a supportive and empowering environment. In reviewing the literature one of the most effective methods to achieve this outcome is to educate the staff, giving them the tools with which to put theory into practice.

The purpose of this program is to support education, empower staff, and promote quality cancer care in both the Cancer Center and Inpatient Unit. A second goal is to promote oncology certification through the provision of programs, education and assistance in preparing for the certification exam.

A learning needs survey was developed and distributed for the purpose of assessing and identifying staff needs for education as well as current practice levels.

Programs were developed and presented that built on the identified needs and utilized the content of the Core Curriculum for Oncology Nursing. A study group was formed as the nurses began preparing for the certification exam and mini in-services were presented based on the identified needs of the group.

Single page study sheets were developed for Oncologic Emergencies. A Journal Club was instituted two months ago with meetings on a monthly basis. The Learning Needs Survey demonstrated knowledge deficits regarding the basic science of oncology, symptom management and...
critical thinking skills. In an effort to meet these needs the interventions listed above were instituted.

The study group concept appears to have been successful, as the two nurses who participated both passed the OCN exam.

2201
THE USE OF A STAFF RETREAT WITH A GRIEF COUNSELOR FOR INPATIENT MEDICAL ONCOLOGY NURSES TO ASSIST WITH BEREAVEMENT AND COPING. Susanne Fessick, RN, BSN, OCN®, HCA/CJW Medical Center, Richmond, VA.

On a daily basis, inpatient medical oncology nurses must cope with death and dying. However, most institutions do not have a process in place which allows nurses the opportunity to express their feelings of grief and loss. The end result may be stress and burnout.

The purpose of this retreat was to give the medical oncology staff an opportunity to talk about the loss of their patients, how this affects them, and how they cope with this loss. Additionally, it helped them to identify current coping skills, learn new strategies, and to continue to provide care in a compassionate and caring manner.

A six-hour retreat facilitated by a grief counselor was held at our cancer resource center attended by twenty medical oncology nurses. A grief counselor educated the staff on methods to improve understanding of grief and how to help oneself through it. The staff were instructed on journaling and encouraged to record the impact they had made on their patients and families. Also stress reduction and deep breathing exercises were taught and all were given the opportunity to discuss their feelings.

Attendance at the retreat and verbal feedback were strong indicators of its success. Although not mandatory, over half of the staff attended and all responded positively and felt the program was revitalizing. Some stated they had never been given the opportunity to grieve and did not know others were feeling similar emotions. The staff felt they were given key tools to help deal with their everyday stress and to improve their ability to cope. An unplanned benefit has been a closer and stronger team. A year later, all the nurses who attended the retreat are still employed.

Practicing as an oncology nurse can be stressful and at times depressing. However, helping nurses to realize the impact and contribution they make to their patients’ and families’ lives and allowing staff the opportunity to discuss their experience with death and dying can be both powerful and uplifting. The end result may be increased value to your patients/families as well as to your oncology team.

2202
ONCOLOGY NURSES’ PERCEPTIONS OF COMMON PATIENT PROBLEMS ENCOUNTERED IN CARE. Elizabeth Johnson, RN, MSN, AOCN®, AOCN®, Massachusetts General Hospital, Boston, MA.

Nursing care involves the management of clinical problems related to disease or treatment. Nursing care is often multidimensional requiring ongoing critical analysis of competency and staffing needs. Oncology nursing can be especially complex given the multiple organ involvement related to the malignancy, disease progression, and treatments as well as the overlay of psycho-social considerations.

To describe the perceptions of oncology nurses in an academic medical center regarding common patient problems encountered in daily clinical practice and their preparedness to manage them.

Brenda Lyon’s Disease/Illness Paradigm

A secondary analysis of data obtained from nurses in an academic medical center who were surveyed about how frequently they encountered each of 27 clinical problems in their daily practice along with their self-perceived preparedness to manage each problem. The list of problems was generated by a diverse group of clinical nurse specialists. Subsets of data for inpatient and infusion oncology nurses were compared with each other and with the responses of all nurses in the institution.

Among the top five problems most frequently encountered, anxiety and knowledge deficit were identified by all three groups. The infusion nurses and inpatient oncology nurses had scores near 90 percent on preparedness to manage anxiety as compared with a score of 83 for all nurses. Preparedness to manage knowledge deficit scores were similar at 85 percent in all groups. Infection was among the top five problems for all nurses and the inpatient oncology nurses, with preparedness scores near 90 percent, but infection was not among the top five problems encountered by the infusion nurses, perhaps reflecting a basic difference between inpatient and outpatient populations. On the other hand, ethical dilemmas related to end-of-life care was the most frequently perceived problem by the infusion nurses but was ranked 11.5/27 by the inpatient oncology nurses and 18/27 by all respondents, perhaps reflecting that infusion nurses often see patients closer to the time of their cancer diagnosis.

The findings provide data to guide the clinical nurse specialist in planning quality improvement surveys and developing interventions to meet the knowledge needs of oncology staff nurses.

2203
EXTREME MAKEOVER: THE ADULT BONE MARROW TRANSPLANT CLINIC EDITION. Laura Turkel, RN, BSN, Duke University Medical Center, Durham, NC; and Cynthia Besas, RN, BSN, OCN®, Duke Medical Center, Durham, NC.

Hospital demolition, construction and renovation projects present immunocompromised patients who receive treatment at an outpatient Adult Bone Marrow Transplant Clinic with increased risk of infection due to the introduction and spread of airborne contaminants such as nosocomial fungal spores, long hidden behind walls and ceilings, into the outpatient Adult Bone Marrow Transplant Clinic. As hospitals expand their facilities to meet rising patient demand nursing staff must take special care to protect immunocompromised patients from the dangers posed by airborne contaminants.

The purpose of this presentation is to illustrate, as an exemplar from one institution, key infection control risk assessment and construction guidelines that were considered in developing a “Plan” to protect outpatient Adult Bone Marrow Transplant Clinic patients from exposure to airborne contaminants resulting from demolition and construction. This presentation will also identify important infection control guidance provided by the Center for Disease Control and the Joint Commission for Accreditation of Health Care Organizations.

Routine hygiene and isolation protocols within the outpatient Adult Bone Marrow Transplant Clinic are not enough to protect immunocompromised patients from airborne contaminants introduced during demolition and construction. Clinic staff must partner with architects, construction crews, housekeeping staff and infection control personnel to understand and assess the special needs of Clinic patients, to develop a “Plan” and to implement effective monitoring and infection-control procedures.

The success of the processes implemented will be measured by comparing historical data reflecting incidences of fungal infection with data derived during the period of demolition, construction and renovation. The short-term value of the program is measured by the cost of the program versus in-patient healthcare costs resulting from complications or death due to avoidable infection.

Outpatient Adult Bone Marrow Transplant Clinic staff play a vital role as health care providers and patient advocates in assessing patient risks, in developing the “Plan” and in promoting processes
and procedures to monitor and reduce the potential for infection to outpatient Adult Bone Marrow Transplant Clinic patients due to infectious airborne contaminants.

2204
PROFESSIONAL BEREAVEMENT AND RESILIENCY: WHAT DOES THIS MEAN TO ONCOLOGY NURSES? Michelle Grover, MSN, MBA, RN, OCN®, and Sharon Krumm, PhD, RN, Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins, Baltimore, MD; Jennifer Wenzel, PhD, RN, CCM, and Maya Shaha, PhD, MSc, RN, Johns Hopkins University School of Nursing, Baltimore, MD; Susan Bauer-Wu, DNSc, RN, Dana-Farber Cancer Institute, Boston, MA; and Diann Snyder, MSN, RN, Johns Hopkins Hospital, Baltimore, MD.

Oncology nurses invest considerable physical and emotional energy in caring for their patients. When patients die, nurses may experience acute or latent feelings of grief or a sense of meaninglessness. If nurses are unsupported with these losses, they may burn-out, choose to leave the workplace, or oncology nursing altogether. When supported in time-sensitive and helpful ways, nurses create and share a culture of self-care and self-respect. This supportive work culture promotes a wider range of interpersonal functioning, wellness and resiliency, thereby potentially reducing staff inclinations to terminate positions or the specialty.

The purpose of the Staff Bereavement and Resiliency Program (SBRP) at this NCI designated comprehensive cancer center is to promote a supportive work culture for adult and pediatric oncology nurses based on results from a mixed methods study. Focus groups were held with staff nurses in order to identify different aspects of bereavement and work-related stress, current support for managing stress, as well as potential stress-reducing self-care interventions. Following analysis of the focus group results, an electronic survey was sent to every adult and pediatric oncology nurse to further clarify themes identified in the focus groups and to learn more about the impact of stress on the nurses. Specific interventions identified by the survey results will be implemented to better support these nurses at individual, unit, and departmental levels.

Each intervention’s effectiveness will be evaluated by the nurses. Nurse satisfaction, patient safety, absenteeism, and nurse turnover and vacancy data will also be evaluated.

It is important to learn directly from the staff what they identify as significant work-related stressors and what interventions they believe can best support them. Experienced, professional oncology nurses contribute significantly to patients’ well-being and clinical outcomes, and to the advancement of the art and science of oncology nursing. Oncology nurses are precious resources and should be nurtured and supported. This SRBP program can serve as a model for other cancer centers in supporting and nurturing their oncology nurses.

2205
DEVELOPMENT AND BENEFITS OF A MINIMAL LIFT PROGRAM ON AN IN-PATIENT ONCOLOGY UNIT. Mary Mielnicki, RN, BSN, and Lisa Lewis, RN, BS, MBA, CNA, Northwestern Memorial Hospital, Chicago, IL.

In-patient oncology units are seeing an increase of admissions with a diagnosis of cancer with treatments plans for symptom management, treatment goals and palliative care. According to the American Cancer Society it is estimated that there will be over 1,399,790 new cases of cancer in 2006. Oncology patients experience increased mobility problems related to side effects of chemotherapy treatment regimens, hemy metastases and generalized de-conditioning.

Northwestern Memorial Hospital (NMH) experienced a rise in bariatric patients hospital wide as well as an increase of patients with mobility issues on their three oncology units. In support of Northwestern Memorial Hospital (NMH) “Best People and Best Patient Experience”, NMH piloted 4 in-patient units with a minimal lift program. One of the pilot units was a thirty bed hematolological oncology unit. The goal of the program was to decrease the patient handling and employee incidents, lost and restricted days and related cost by 20%.

Each pilot unit received education, training, mechanical lift equipment and other approved patient handling aids. An assessment tool algorithm that identified physically dependent patients and procedures to safely address the handling and movement of each patient was provided. Documentation was performed on each patient per shift and updated as patient’s needs changed; this was one of the metrics used for program. Super users were assigned on each pilot unit to assist with trouble shooting and the training of new staff and ongoing education on the units.

Key metrics used were: lost and restricted work days, workers and compensation cost, assessment and documentation, pre and post implementation satisfaction surveys. Results, the pilot program surpassed the original goal to reduce patient handling related injuries and cost by 20%. Instead it achieved the following: 77% reduction in incidents, 99.9% reduction in lost & restricted days, and 99.6% reduction in incurred and replacement cost.

On the oncology unit there was an added benefit of the minimal lift program. Patients who had used the lift equipment for transfers from bed to cart or bed to chair experienced decrease pain on movement and an added sense of safety and security.

2206
GASTROINTESTINAL SYMPTOMS AND GROWTH PATTERNS IN CHILDREN POST BONE MARROW TRANSPLANT. Cheryl Rodgers, RN, MSN, CPNP, CPON®, Patricia Wills-Alcoser, RN, MSN, CPNP, Rebecca Monroe, RN, MSN, CPNP, Lisa McDonald, RN, MSN, CPNP, Melissa Trevino, RN, MSN, CPNP, and Marilyn Hockenberry, PhD, RN, CS, PNP, FAAN, Texas Childrens Cancer Center and Hematology Service, Houston, TX.

Children are at risk for long-term malnutrition after a bone marrow transplant (BMT) due to poor oral intake, altered absorption and increased metabolic demands as a result of medical complications and/or medication toxicities. Despite these known risks, little research has been performed to evaluate long-term nutritional issues in children post BMT.

The purposes of the study were to identify the growth patterns and gastrointestinal (GI) symptoms in children during the first four months post BMT, and to assess if an association exists between acute graft-versus-host disease (GVHD) and growth pattern changes or GI symptoms.

The University of California San Francisco Symptom Management Model, which emphasizes the need for a thorough assessment of the symptom experience to guide symptom management and avoid negative outcomes, provided a conceptual framework for this research. This descriptive study used a prospective, longitudinal cohort design. A convenience sample of 45 children receiving an allogeneic BMT completed the Memorial Symptom Assessment Scale and anthropometric measurements before BMT then 2 months and 4 months post BMT. Data analysis was performed with repeated measure ANOVA to evaluate anthropometric changes, descriptive statistics to analyze GI symptoms and a t-test and chi-square test to evaluate anthropometric measurements and GI symptoms between children with and without GVHD.

All anthropometric measurements of children showed a significant change over the 4-month period. The mean height increased over
the 4 months with all other anthropometric measurements including weight, skinfold triceps and midarm circumference showed a significant decrease. There was a common occurrence of symptoms such as lack of appetite, nausea and diarrhea throughout the repeated measures. No statistical significant difference was noted in any of the anthropometric measurements or frequency of GI symptoms between children with and without GVHD. Children experience several GI symptoms frequently during the acute BMT recovery phase that can lead to poor outcomes, such as weight loss. Nurses need to monitor patients’ GI symptoms frequently during the acute BMT recovery phase to identify changes that require nutritional assistance in order to guide symptom management to achieve positive outcomes.

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2208
HUMAN PAPILLOMA VIRUS AND CERVICAL CANCER: AN EDUCATIONAL PROGRAM. Elizabeth Johnson, RN, MSN, AOCNS®, AOCNS, Coleen Caster, MSN, FNP, Martha Haverly, MSN, WNP, Shelley Sennott, BSN, RN, and Patricia Hojnowski-Diaz, MSN, MPH, RN, Massachusetts General Hospital, Boston, MA.

Human Papilloma Virus (HPV) is the leading cause of cervical cancer, raising concerns about transmission, sexual practices, and age of sexual activity. The recent availability of papillomavirus recombinant vaccine (Gardasil) should have a significant impact with a potential for reducing the incidence of this malignancy by well over 90 percent.

To educate nurses about the pathophysiology of HPV leading to cervical cancer and new clinical strategies to prevent this malignancy

A group of gynecologic oncology nurses planned and presented a Nursing Grand Rounds program, which was accredited for continuing education credit, on HPV and Cervical Cancer for nurses at a major medical center. The program presented evidence-based information on the human papilloma virus (types 6, 11, 16, and 18), short term consequences such as genital and buccal lesions, long term consequences such as cervical cancer and head and neck cancers, prevention of infection, and the projected impact of the papillomavirus recombinant vaccine. Presenters also discussed how to educate parents about having their puberty-aged daughters vaccinated as well as discussing concerns about past exposure with patients in active treatment for cervical cancer. Twenty-four nurses attended the program, and the evaluation forms were overwhelmingly positive.

Given that nurses in general are often in a position to discuss health promotion with their patients, they should be knowledgeable about the risks of cervical cancer related to sexual practices and the availability of a preventative vaccine. This presentation was recorded and will be available for viewing on DVD for the next year, so that nurses on off shifts or otherwise unable to attend the original presentation can benefit from the information and receive continuing education credit.

2211
QUALITY OF LIFE AND SOCIO-DEMOGRAPHIC CHARACTERISTICS IN KOREAN WOMEN WITH BREAST CANCER. Young Ran Chae, RN, Department of Nursing, Kangwon National University, Kangwon-do, Korea.

Cancer and its treatment adversely affect biopsychosocial aspects of patients’ quality of life (QOL).

The purpose of this study was to determine whether a relationship exists between QOL and the socio-demographic characteristics and elapsed post-diagnosis time of breast cancer survivors in Korea.

The research design was exploratory study using a convenience sampling method. The subjects were 253 women out-patients of Seoul National University Hospital in Seoul who had undergone mastectomy after a breast cancer diagnosis. The data were collected using face to face interviews. Research variables included QOL, marital status, educational level, age, occupation, income and elapsed post-diagnosis time. Chae and Choe’s QOL scale (2001) for Korean breast cancer survivors was used to measure QOL. The data were analyzed with the SPSS WIN 12.0 program. T-test and ANOVA were used to identify the differences on QOL of breast cancer survivors according to socio-demographic characteristics and elapsed post-diagnosis time.

Findings: Individuals at married, upper level of education, age of forty, and more than 1 year post-diagnosis had higher QOL scores. QOL scores of the individuals were not significant differences according to occupation and income.

Implications: This study suggests that the QOL of individuals with breast cancer in Korea could be different according to the socio-demographic characteristics and elapsed post-diagnosis time. Accordingly, future nursing research should be directed toward the implementation of interventions that promote the QOL of the subjects who had lower QOL scores.
Clinical Pathways in Breast Cancer Teach Evidence-Based Practice and Monitor Nursing Sensitive Patient Outcomes. Jane Bryce, RN, MSN, National Cancer Institute, Naples, Italy; Carol Bell, BSN, Stanford Cancer Center, Palo Alto, CA; and Marianna Connola, RN, National Cancer Institute, Naples, Italy.

Oncology nurses are challenged to develop programs that promote the planning and delivery of evidence based (EB) care and the evaluation of treatment outcomes. Clinical pathways are tools for planning, documenting and evaluating patient care.

The purpose of this project was to implement EB symptom management of breast cancer patients using clinical pathways (CP) with a specific focus on EB interventions and nursing sensitive patient outcomes (NSPO) measurement.

A multidisciplinary team at NCI Naples developed CPs for patients undergoing breast cancer surgery, radiation therapy, adjuvant therapy and long-term follow-up. Nursing identified 4 initial priority areas for providing EB symptom management: fatigue, lymphedema, oral mucositis, cognitive dysfunction. Fatigue assessment and interventions were based on the NCCN fatigue guidelines and allow for individualized nursing interventions, facilitated during patient visits with the use of the ONS PEP fatigue card. Lymphedema prevention guidelines were based on physiologic rationale and standardized measurement criteria were integrated with patient education materials. Early diagnosis and prompt referral for lymphedema treatment are key outcomes measures. Oral mucositis guidelines were based on existing systematic reviews and included standard grading and oral care instructions. Cognitive dysfunction is screened using subjective patient reports and thresholds that prompt further investigations based on clinician findings and the mini mental status exam.

This process was used as a model for teaching EB practice (and some of its inherent difficulties) to nurses. Some lessons learned: Fatigue interventions must be both EB and individualized for this complex and multifactorial symptom. Lymphedema: rational prevention guidelines may be used in the absence of experimental evidence, simple measurement criteria are important for prospective evaluation. Mucositis: Systematic reviews are helpful in teaching about levels of evidence and little experimental evidence was applicable to our setting. Cognitive dysfunction: In depth testing is impractical in the nonresearch setting but increased clinician awareness permits simplified screening and referral.

The clinical pathway model provides a method for planning evidence based care with clear measurement and outcome criteria. The model facilitates teaching nurses the process of evaluation of evidence with its application in clinical practice, links interventions with NSPO when applicable, and permits ongoing review.

The Safe Handling of Chemotherapy. Jennifer Martens, RN, OCN®, BSN, and Cecilia Suh-Priest, BSN, William Beaumont Hospital, Royal Oak, MI.

Oncology nurses are responsible for safe administration and containment of spills during chemotherapy administration. Case studies involving accidental chemotherapy exposure were presented and we identified knowledge deficits and the need for oncology nursing practice changes. It was found that the current chemotherapy policy was outdated and needed to be revised.

The purpose of this project was to revise the existing chemotherapy safe handling policy using the current Oncology Nursing Society’s Chemotherapy and Biotherapy Guidelines and Recommendations for Practice as a guideline. It is crucial for the safety of patients and oncology nursing staff that accidental exposure of chemotherapy be avoided.

Hospital policy and current Oncology Nursing Society guidelines were reviewed. A literature was completed. An interdisciplinary team was formed. Equipment needs and system changes were identified. The existing policy was revised and implemented throughout the institution through educational inservices. Chemotherapy precautions were added to computerized report sheets. The revised policy was added to the nursing orientation manual. An annual mandatory skills validation was initiated.

A post test was conducted to determine if there was an increased awareness of the new chemotherapy safe handling policy. Case studies will be continued to identify further needs. A fluorescent study will be conducted to evaluate a close system for chemotherapy preparation and administration.

The safety of patients and oncology nursing staff is the priority in the administration of chemotherapy. The revised chemotherapy safe handling policy provides the knowledge needed to minimize accidental chemotherapy exposure. This policy will be utilized throughout our institution.

Development of a Nursing Telephone Triage Program in an Oncology Ambulatory Setting. Suzelle Saint-Eloi, RN, MS, Lilian Vitale Pedulla, RN, MSN, Elizabeth Tracey, RN, PhD, Prabhjyot Singh, RN, MPH, Lynn Thompson, RN, MPH, and Robyn Souza, RN, MPH, Dana-Farber Cancer Institute, Boston, MA.

Advances in cancer care continue to shift care from the inpatient to the ambulatory setting, and with the increase in the use of oral chemotherapy and injection therapies, to the home setting. This shift in care delivery settings has resulted in more frequent calls from patients to their caregivers for advice and possible intervention. In response to this growing trend among the patients being treated at our NCI-designated Cancer Center, the nursing staff developed a comprehensive telephone triage program to address symptom management, follow-up and coordination of care.

The purpose of our initiative was to develop a standard process for nurses to follow when performing telephone triage for patients being treated at our Cancer Center. This initiative included the development of a policy and procedure, guidelines for symptom management, standardized documentation and nursing education.

Nurses from various direct care and leadership roles worked together to develop the Nursing Telephone Triage Program by carrying out the following activities:

• Conducted a documentation assessment survey to determine the nurses’ perception and practice of telephone triage
• Used the survey results to guide the scope and work of the committee
• Conducted a literature review to identify existing evidence on telephone triage
• Developed a triage policy incorporating feedback from legal counsel and the Board of Registration in Nursing
• Adopted published symptom management guidelines for nurses to use during telephone triage
• Developed, piloted and implemented an electronic and paper documentation tool.

A six-month post implementation focused audit is planned to identify areas for further enhancement.

Oncology nurses are in a unique position to influence policy development at the local and broadest levels. The process we implemented to develop a standardized method for nurses to follow during telephone triage could be adapted for use by other nurses for a variety of purposes.
NURTURE YOUR HOPE: A RETREAT FOR CANCER PATIENTS AND CAREGIVERS. Frank Brown, RN, MS, OCN®, and Beth Lenegan, PhD, Roswell Park Cancer Institute, Buffalo, NY.

Traditional support groups are an important venue for many patients and caregivers in their cancer journey. There are times when these types of support group opportunities do not fit into the busy lives of our patients and their family constellation. Therefore, novel approaches to meeting the varying needs of patients and their family members must be developed and implemented in the Oncology arena.

This innovative retreat was planned by our pastoral care department and multidisciplinary team members, each bringing an area of expertise in relevant patient topics selected and presented.

This two day retreat was a non-denominational weekend of renewal, prayer, inspiration, education, personal reflection as well as learning about important issues and emotions that these participants were dealing with. The retreat was planned for a total of 20 patients and caregivers, each paying a nominal fee for registration. Participants were able to attend sessions such as: Journaling your journey; Gentle yoga and healing breathing; Art as a coping tool; Aromatherapy and massage; Family/caregiver’s journey (care for the caregiver). These breakout sessions were repeated in the afternoon so participants could attend as many as they wanted with time to rest and reflect with their loved one with them. Some of the sessions were led by a physician, director of pastoral care, oncology certified nurse and social worker. Other session leaders were secured from the local area where the retreat was held at the Peter Nolasco Retreat Center, Leroy, New York about one hour from our Comprehensive Cancer Center.

Empirical evaluation will be discussed as both participants and staff members were highly satisfied with the outcomes of the retreat and the benefits they experienced as a result of attending.

This prototype retreat can be replicated at another cancer center or facility as a novel approach to meeting the varying needs of patients and caregivers in their cancer journey and their quest for hope.

DEVELOPING AND IMPLEMENTING A FAST-TRACK BS-PHD NURSING PROGRAM IN HEALTH POLICY RESEARCH TO ADDRESS DIVERSITY ISSUES IN ONCOLOGY PRACTICE, EDUCATION AND RESEARCH. Patricia Reid Ponte, DNSc, RN, FAAN, Dana-Farber Cancer Institute, Boston, MA; Greer Glazer, PhD, RN, CNP, FAAN, and Carol Ellenbecker, PhD, RN, UMASS Boston, Boston, MA; and Mary Cooley, PhD, RN, and Marsha Fonteyn, PhD, RN, OCN®, Dana-Farber Cancer Institute, Boston, MA.

The problem of too few doctorally prepared nurses, especially minority nurses, is further complicated by the paucity of those with research expertise in health policy, cancer nursing care or health disparities. Nurse leaders from our NCI-designated Cancer Center formed a partnership with the nursing faculty from a nearby minority-serving university to design, pilot, and evaluate a fast track BS to PhD program, enabling both institutions to take advantage of their complimentary resources.

The purpose of this NCI-funded project was to develop a training and mentorship program that would prepare PhD nursing students, especially under-represented minority, to become educators and scientists with expertise in health policy targeted to cancer nursing care and health disparities.

During this first year of a three-year plan, we implemented the following interventions:

1. Formed Internal Advisory Board that meets monthly and is comprised of nurses with expertise in research or teaching in cancer care, health policy, health disparities, PhD in Nursing programs and/or working with minority student and research populations
2. Formed an External Advisory Board to provide counsel to the project leaders
3. Planned and developed a training and mentorship program
4. Planned a community-based educational program for cancer prevention
5. Began marketing and recruitment for the program.

Formal evaluation is planned. Our first year goals have been met: the curriculum has been developed, integrating content on theory and clinical research methods, cancer nursing care and health disparity issues into the university’s existing PhD Program in Nursing: a comprehensive review of existing (54) fast track programs has been completed; focus groups of potential students have been held to collect additional information to guide further curriculum development. A database has been created of nurse scientists and minority leaders to serve as mentors to the PhD students. First-year student recruitment goals have been met.

Information about an innovative graduate program to create more doctorally prepared nurses with research knowledge and skill to address issues in health policy, oncology and health disparity has significant implications for oncology nursing practice, research and education.

DESCRIPTING NURSING TRIAGE OF ONCOLOGY PATIENTS’ TELEPHONE CALLS. Marie Flannery, RN, PhD, AOCN®, James P. Wilmot Cancer Center/University of Rochester School of Nursing, Rochester, NY; and Shannon Phillips, RN, MS, AOCN®, and Michele Haller, RN, BSN, James P. Wilmot Cancer Center, Rochester, NY.

Nursing triage of telephone calls are a critical component of communication in oncology practice and serve, as the primary mechanism for informing providers about changes in patient status between scheduled appointments. However, limited descriptive data exists in this field.

Describe the characteristics (volume, distribution, and nursing workload) of telephone calls placed to an oncology practice. This purpose fits with ONS research priorities that stress the examination of nurse sensitive outcomes; telephone triage is one component of independent nursing functions that have implications for outcomes.

A nursing workload model was used.

This descriptive study was conducted at a large, hospital based outpatient adult medical oncology clinic using a retrospective design. All documented RN telephone calls for a 4-month period were included. Data were abstracted from medical records and coded using a Phone Call Record; inter-rater reliability was 93%. Descriptive statistics were computed.

There were 3,028 phone calls were made over the 4-month period (87 work days). Call volume ranged from 29-61 per day (M=35). Length of time to answer call averaged 12 minutes (range 1-105). Call distribution varied significantly; more calls were made during the morning (55%) and on Mondays (24%). Overall, 7 phone calls were made for every 10 scheduled appointments. Callers were primarily patient/family (65%) or Community Health Nurse (13%). Only 8% of the calls were initiated by oncology nursing staff. The majority of calls (61%) required multiple contacts to manage the concern (M=2.5). Although the oncologist was consulted for 53% of the calls; only 8% of calls required physician direct response. Calls were generated by 869 patients, an average of 10 different patients each day. The majority (56%) of patients placed repeat calls (range 1-43).
In this oncology practice, call volume represents a large component of nursing responsibility. Call distribution varied by time, requiring a flexible nursing assignment. Nursing triage responsibilities were complex, requiring multiple contacts. Telephone management reflects independent role functioning (47% of calls managed by RN) with direct implications for nursing organizational practice and education. Only a small percent of calls were proactively initiated by nursing staff an interesting area for future study.

2227
THE DIAGNOSIS OF BREAST CANCER: FAMILY HISTORY MATTERS. Marcia Boehmke, DNS, ANPC, RN, University at Buffalo, State University of New York, Buffalo, NY.

Different experiences exist in women diagnosed with breast cancer when there is a family history versus women that have no family history. The informational and self-care management needs of women with no family history are greater. Initially it was thought that women who perceived themselves at great risk of developing breast cancer, because of a sporadic family history, experienced heightened anxiety and increased uncertainty that lead to an increased distress experience. However, in a recent study investigating attitudes and symptom distress experiences in women newly diagnosed with breast cancer, the converse emerged.

In concert with the ONS research agenda that addresses family-focused psychosocial research, the purpose of this study was to examine the different experiences and distress levels in women with and without a family history of breast cancer during diagnosis and treatment.

Hermeneutic phenomenology that focuses on the lived experiences of individuals undergoing an event, guided this study in that they were asked to tell their story about the breast cancer experience.

Narratives were analyzed using the seven-stage hermeneutic process. The Principal Investigator was the primary reviewer; if there were any questions/concerns an expert in this phenomenological method was consulted until 100% agreement was achieved.

Three themes emerged: expectation, understanding/knowledge, and support. Women with a family history approached mammography with a “when, not if” mentation; were provided by family with helpful, practical management strategies often not provided by the oncology healthcare team; felt they could openly communicate with and were given unrequested support by their family. Those with no history were paralyzed by shock at diagnosis; felt they had to “endure” side effect and employed no self-care management strategies; often felt they could not communicate their true feelings to family members, as they felt a need to protect them.

Oncology nurses should recognize this difference in “family history” and provide helpful suggestions for self-management strategies often not found in pamphlets; spend more time with these women to and allow them to share the feelings; support them by explaining that many symptoms can be managed rather than “endured.”

2228
EPIDERMAL GROWTH FACTOR RECEPTOR KINASE INHIBITORS (EGFR-TKI): THE NURSE’S ROLE IN MANAGEMENT OF PATIENTS RECEIVING MOLECULAR TARGETED THERAPIES. Maria Guerrero, RN, MSN, ANP-C, OCN®, M.D. Anderson Cancer Center, Houston, TX.

Molecular targeted therapy is the new and innovative method being used to treat cancer patients with solid tumors. In this particular treatment modality target molecules are focused more on its essential effects to the growth and progression of tumors, and not to its effects on normal healthy tissue. This is significantly distinguished from cytotoxic chemotherapy in which these agents do not distinguish between killing only tumors cells from normal cells; they annihilate everything leading to devastating drug related toxicities. The goal for targeted therapies is to provide antitumor benefits with better tolerability. Epidermal Growth Factor Receptor Kinase is one of many target molecules on tumor cells that is responsible for activating multiple down signaling pathways governing tumor growth. Several approaches have been created to inhibit the EGFR pathway in this particular paper we will discuss EGFR –TKI which have been described to provide benefits in patients with solid tumors and have been associated with specific clinical features and safety profiles as compared to conventional chemotherapy toxic therapies. Molecular targeted therapies are opening many doors of opportunity for patients with advanced solid tumors while receiving chemotherapy or for the patient who may be unable to tolerate the toxicities associated with chemotherapy. Research is currently ongoing for effective plans in order to incorporate molecular therapies for patients with solid malignancies.

The goal for this paper is to educate the nurse on the role of new treatment modality EGFRK and its role in the development of solid tumors.

(1) identification of EGFR-TKI (2) the potential efficacy and side effects associated with molecular targeted therapies (3) Information that the nurse needs to be able identify and obtain in order to manage the potential side effects associated with this particular type of therapy, and signs and symptoms that need to be prompted to the physician or nurse practitioner.

Evaluation would be nurse’s ability to recognize type of therapy, side effects, and need for management of potential side effects associated with this therapy.

The methodology to disseminate this information will be a poster presentation depicting all three categories mentioned

This presentation will be of benefit to oncology nurses who provide care to patients experiencing craniotomies and to nurses in any setting that are looking for a process to improve patient education.

The Journal Club is still in its infancy stages, as we have only had two meetings. However, progress has been made, as the staff is now beginning to be more prepared in their discussion of the articles.

Continued education is planned for the coming year with the goal of a totally certified oncology program. Staff has been encouraged to attend and report about various educational programs both within and outside the facility including Fall Institute and Congress. We will continue to develop programs to encourage autonomous practice through the expansion of staff skills and knowledge.

2229
UTILIZATION OF SIX SIGMA METHODOLOGIES TO IMPROVE EFFICIENCY IN AN OUTPATIENT ONCOLOGY INFUSION AREA. Ann Marie Ronsman, RN, MSN, Froedert Memorial Lutheran Hospital, Milwaukee, WI; and Kevin Kirchoff, RN, BSN, Kristen Scott, RN, BSN, and Brain Bair, OTR-L, MHA, Froedert Hospital, Milwaukee, WI.

Administration of chemotherapy and other supportive treatments to large volumes of oncology patients in a way that is efficient, effective and safe is a constant challenge in the outpatient oncology setting. Ability to manage scheduled patients along with walk in patients with acute needs is paramount. Data collected from our patients, physicians and staff identified that delays in the time treatment was actually started, compared to the scheduled time, lead to a significant dissatisfaction.

Hospital Cancer Center decided to use a Six Sigma process to improve patient flow in the treatment area. Six Sigma is a process improvement strategy that uses powerful statistical tools which have
been successfully applied in industry for many years that focuses on defect/error reduction by elimination of variation. Froedtert was one of the first six hospitals in the country to transfer this body of knowledge to healthcare. More than 50 Six Sigma projects at Froedtert have been initiated since the program began in 1999.

The Six Sigma process relates variation to customer expectations or specifications. We found that there was wide variability between the patient’s appointment time and the time that patient’s treatments actually started. This occurred for a variety of reasons including: treatment room schedule, the way chairs and beds were scheduled, scheduling parameters, the way acute patients were managed, pharmacy work flows, RN work flows, and physician scheduling.

The goal of the project is to decrease the variability in the time the patient is seated in their chair to begin treatment to within 15 minutes of the scheduled start time 95% of the time.

The methods utilized in this process and the information gained can be applied in other outpatient oncology settings to ensure delivery of efficient and timely care.

### 2230

**PATTERNS AND PREDICTORS OF COMPLEMENTARY THERAPY USE IN THE U.S. CANCER POPULATION.** Judith Fouladbaksh, PhD, APRN, BC, AHN-C, Wayne State University, Detroit, MI; and Manfred Stommel, PhD, Michigan State University, East Lansing, MI.

Complementary and alternative medicine (CAM) therapies are often used with ‘mainstream’ medical treatments. Estimates of use by cancer survivors range from 7-64%. It is important for oncology nurses to understand factors influencing CAM use and implications for nursing care.

This study aimed to determine patterns, predictors and purpose of use of CAM providers, practices and products in the U.S. cancer population in relationship to symptom management.

The CAM Healthcare Model, an extension of the Behavioral Model for Health Services Use, guided the study. Predisposing, enabling and need-for-care factors were examined for ability to predict CAM use.

A secondary analysis of the National Health Interview Survey (NHIS) using STATA 9.2 software for population estimation was conducted. The sample included all individuals reporting a cancer diagnosis in the NHIS (N=2262). Study participants were asked if they used any of the 22 CAM therapies listed in the Alternative Health Supplement of the NHIS. CAM therapies were categorized as provider services, practices or products for analysis. Dependent variables included: (a) overall use/non-use of at least one of the identified CAM therapies, (b) use/non-use of specific CAM categories and (c) purpose of use (treatment/health promotion). Independent variables included: Predisposing factors (gender, age, race, education, marital status), Enabling factors (income, health insurance, provider-contact), and Need factors (cancer site, symptoms, co-morbidity, health status). Binary and Multinomial Logistic Regression, the primary statistical models employed in the analysis, focused on between-subject differences in CAM use. A stepwise procedure was followed and potential predictor variables were excluded from the model if their p-value exceeded 0.10.

Multivariate analysis has identified characteristics that distinguish CAM users from non-users in the U.S. cancer population, representing an estimated 14.3 million cancer survivors. Empirical findings confirm CAM use was more prevalent among female, middle-aged, white, and well-educated people; women were specifically more likely to use CAM practices than men. Higher income, private insurance, contact with nurse practitioners, reported pain and co-morbidity were strong predictors of CAM use by cancer survivors. CAM use was reported by 39% of all cancer survivors, highlighting the need for oncology nurses to assess CAM use by their patients.

### 2233

**DEVELOPMENT OF A COMPREHENSIVE PATIENT CARE PLAN—FROM PRE-OPERATIVE AMBULATORY CENTER TO POST HOSPITAL DISCHARGE.** Lisa M. Boris, RN, and Margarita Coyne, RN, BSN, Roswell Park Cancer Institute, Buffalo, NY.

In an oncology facility that is growing, we identified a problem with late discharge from our inpatient beds creating a barrier to admissions. This prompted a multidisciplinary group to examine the data for discharge. The review of data identified that less than 30% of patients were actually discharged as expected. As patient acuity and volumes continued to increase the need for a highly efficient and streamlined discharge planning program was identified.

A multidisciplinary team was convened to identify improvement strategies. The team included oncology nurses from the pre-surgical ambulatory setting and from the post-surgical inpatient area. In order to improve and enhance the process of patient care planning we have implemented a pilot project that “tracks” the patient from initial access to “final” discharge home. Discharge practices and times were examined determining gaps in patient flow.

The team meets bi-weekly to evaluate the needs of patients and identify what new measures will be implemented. Team members developed processes and changes that have provided for improved efficiency of patient care during hospitalization. Patient post-surgical orders sets were completely rewritten with a focus on current evidence and eliminating barriers to the discharge process. The order sets are comprehensive and address the scope of care from pre-op to post-op.

Patient education provided by the staff nurses prepares the oncology patient in the ambulatory centers for treatment or surgery in the inpatient areas. The pilot project was implemented with the Gastrointestinal oncology service. GI ambulatory nurses and GI Inpatient nurses worked collaboratively to design a program that will be expanded to other oncology services.

The inpatient and outpatient nursing staff have changed the delivery of oncology care by implementing anticipatory discharge orders and education upon primary nursing assessment. This presentation will include data pre and post implementation, including discharge times, patient satisfaction and patient complications. This material will be revealed to oncology nurses in any setting that have an interest in improving the integration of care provided to their patients.

### 2235

**EFFICACY OF GABAPENTIN ON PRURITUS INDUCED BY INTERLEUKIN-2 (IL-2) TREATMENT IN PATIENTS WITH METASTATIC RENAL CELL CARCINOMA AND MELANOMA.** Valerie Rusciano, RN, Sung Ho Lee, MD, and Janice Dutcher, MD, Our Lady of Mercy Medical Center, Bronx, NY.

IL-2 treatment causes pruritus. The role of histamine contributing to pruritus is controversial, and eosinophilia induced by IL-2 does not seem to correlate with the pruritus. Direct stimulation of pain nerve fibers, such as A-delta and C fibers by the cytokines induced by IL-2 treatment has been proposed as a possible cause. We have used Gabapentin to stabilize the nerve membrane or nerve synapses to impact on the pruritus.

To provide the oncology nurse with insight into the identification and novel treatment options for pruritus in patients treated with IL-2 for metastatic renal cell carcinoma and melanoma.

Based on the mechanism of action of Gabapentin, we hypothesized that it could alleviate pruritus.
Direct interview and review concurrent follow up notes as well as IRB approved questionnaire was utilized. 54 patients treated with IL-2 from January 2005 to December 2006 were screened. Among 30 patients who complained of pruritus, 17 were given Gabapentin. We quantified these 17 patient’s pruritus according to CTCAE 3.0 criteria, and before and after Gabapentin. The CTCAE grading scale i1 0-3, from none, localized, widespread pruritus interfering with daily activities.

Data was analyzed with paired student T-test using SPSS 13.0 for data analysis.

Mean age was 56, 12 male and 5 female. 15 patients had renal cell carcinoma and 2 had melanoma. Gabapentin was started in hospital in 9 patients and outpatient in 8. Mean initial dose of Gabapentin was 865 mg/day and the mean time for Gabapentin to provide symptom relief was 1.088 hours after each dose. According to CTCAE scale, the mean pruritus before Gabapentin was 2.41 and it decreased to 0.65 after Gabapentin treatment. Paired student T-test for the difference of means before and after treatment was statistically significant (p<0.0005). In conclusion, pruritus induced by IL-2 infusion responds well to Gabapentin. Although other confounding causes of pruritus cannot be excluded, the major mechanism is likely due to direct or indirect effect of IL-2, which then stimulates the nerve fibers. Thus, we propose to educate the oncology nurses about Gabapentin as an effective treatment against pruritus induced by IL-2.

2236
BRADEN SCALE FOR GYNECOLOGICAL RADIATION PATIENTS. Margie Trojanowsky, RN, BSN, OCN®, M.D. Anderson Cancer Center, Houston, TX.

The Braden Scale has been well validated as a tool to assess risk of skin breakdown, however, there has only been one study conducted with oncology patients. Gynecological radiation patients, because of their treatment modalities, have a higher risk for impaired skin integrity and breakdown. The Braden Scale offers the nurse the opportunity to assess the risk for impaired skin integrity related to pressure that the gynecologic radiation patient population may exhibit. These patients require a more specific Braden Scale with interventions and outcomes that are specific to this particular population.

The purpose of this project is to develop a Braden Scale specific to gynecological radiation patients (specifically cervical, endometrial, and vaginal cancer patients receiving inpatient radiation implants) to ensure accurate and adequate assessment of their potential for skin breakdown.

Our primary goal thus far has been to develop interventions and outcomes specific to the gynecological radiation patient population. The intervention will be piloted on the radiation unit. The results will be presented to the Shared Governance Council for practice and policy review.

Results will be evaluated in the following manner: incidence of Stage I/II/III/IV ulcers will be measured both as inpatient and outpatient, nurses will be surveyed regarding perception of workload, and the Shared Governance Council will evaluated policy implications.

The results have the following implications: decreasing the incidence of pressure ulcers in radiation patients, development of appropriate assessment intervals, development of new policies and standardized interventions as well as analysis of nurse work effort.

2237
CLINICAL TRIAL RECRUITMENT OPPORTUNITIES WITH OLDER ADULTS WITH CANCER. Judith Payne, PhD, RN, AOCN®, Duke University School of Nursing, Durham, NC.

Significance and Background: Cancer is a disease of aging. Sixty percent of all cancer cases occur in those over 65 years of age. Older adults are underrepresented in most randomized clinical trials, especially in oncology pharmaceutical and symptom management trials (<1.5%). Although studies investigating symptom management and responses to various treatments have included older adults, studies specific to older adults are limited.

The purpose of this presentation is to examine barriers encountered, and strategies used to increase subject accrual in an intervention study for older women with breast cancer. Specific aims are to: 1) identify patient, physician, and system-related barriers encountered during accrual and enrollment of older patients to randomized clinical trials, 2) integrate concepts from Rogers’ Diffusion of Innovations theory to enhance communication skills, education, and trust with older oncology patients, and 3) describe an evidenced-based education protocol for recruitment of older patients to randomized clinical trials.

Intervention: The development process of a protocol useful for enhanced recruitment of older oncology patients for participation in randomized clinical trials will be presented. Protocol content focuses on identified barriers, patient recruitment, education, organizational structure, community resources, and members of the research team.

Rogers’ Diffusion of Innovations provides a theory-driven framework for identifying barriers, strategies, and development of a protocol to enhance recruitment of older adults to clinical trial participation. Subject accrual and enrollment increased significantly following protocol development.

Although older adults represent approximately two-thirds of cancer patients, they account for a small number of oncology clinical trial participants. Minimal research has been conducted with older patients with cancer to help us understand differences in treatment response and whether and how symptoms differ in older adults compared to younger adults. It is concerning that we have few evidence-based symptom management interventions, and that we have limited knowledge on treatment and dose-related responses in older adults with cancer. Researchers must integrate innovative strategies with existing recruitment procedures at their institutions and communities in order to successfully recruit, enroll, and retain older subjects with cancer to randomized clinical trials. Collaboration among the research team, organizational personnel, institutions, and the community is essential for successful subject accrual rates in research trials.

2240
DEVELOPMENT OF OUTCOMES FOR AN ONCOLOGY NURSE INTERNSHIP PROGRAM. Debbie Parchen, RN, BSN, OCN®, National Institutes of Health, Bethesda, MD; Kathleen Castro, RN, MS, AOCN®, and Cynthia Herrinka, RN, BS, National Institutes of Health, Clinical Center, Bethesda, MD; Elizabeth Ness, RN, MS, National Institutes of Health, National Cancer Institute, Bethesda, MD; and Margaret Blevans, RN, PhD, AOCN®, National Institutes of Health, Clinical Center, Bethesda, MD.

In the current healthcare environment organizations must show favorable outcomes to justify educational programs. Writing outcomes which can be measured efficiently, effectively and economically can be a challenge. Outcomes were revised to reflect concrete organizational goals for the Oncology Nurse Internship Program (ONIP), in existence for more than twenty years, at the National Institutes of Health Clinical Center.

Our purpose is to describe the process used to develop measurable outcomes which provide useful information including justification of a valuable ONIP.

Outcome revisions began with a stakeholders meeting of the ONIP to determine desired outcomes. Benchmarking our Program against...
twelve similar facilities revealed that the majority of these oncology internship programs did not utilize standard outcome measures for program evaluation. A group including a nurse recruiter, a nurse researcher, nurse administrators, a clinical nurse specialist, and our partners at the National Cancer Institute was assembled to begin drafting desired Program outcomes. An extensive literature review was conducted to identify tools and methods for measuring outcomes. The evidence revealed available resources which were customized to best fit our requirements. Specific outcomes for the ONIP were developed by aligning our organizational goals with our Program goals. These outcomes included the following: enhanced oncology knowledge, retention of oncology specialty nurses and leadership development in new nurse graduates. Future efforts may include partnering with the recruitment-retention group for completion of a job satisfaction survey as one way of determining if these outcomes led to additional organizational benefit.

The purpose of this presentation is to increase awareness of this emerging oncologic emergency. Clinical manifestations of HVS are the result of increased circulating serum immunoglobulins. The immediate treatment of this oncologic emergency includes hydration with diuresis and plasmapheresis. Single plasmapheresis usually results in dramatic improvement in patients with WM but in MM, usually it requires more than one plasma exchange. The ultimate treatment of this syndrome is aimed at controlling the underlying illness. In MM, the treatment may include XRT, steroids, thalidomide, and chemotherapy. In WM, the treatment may include monoclonal antibody such as rituximab and chemotherapy.

After the presentation, nurses will be able to identify the clinical presentations of HVS. The nurse will be able to identify diagnostic tools for hyperviscosity syndrome. The nurse will be able to discuss the immediate and long term treatment of this oncologic emergency. The nurse will be able discuss symptom management of this patient population.

The poster presentation will include brief overview of the pathogenesis, clinical features and treatment of Hyperviscosity Syndrome. The ultimate treatment of this syndrome is treating the underlying disease, so treatment of plasma cell dyscrasias most respectively, MM and WM will be briefly discussed. It is important that nurses stay current or updated with the treatment of MM and WM through research and continuing education programs.
management of constipation. A review of current practice standards was initiated. This project was implemented to determine whether our existing standards for constipation management were clear, accurate and based on the latest evidence. Clinical questions were framed to focus primarily on evidence-based practices for prevention and management of constipation.

An ambulatory nursing subcommittee established a constipation task force and a literature search was performed to determine the presence of any new data since our practice standard was last reviewed. The evidence-based review included current literature, published guidelines and expert consultation. Our current standards and previously established treatment algorithm were reviewed for clarity, thoroughness and clinical usefulness. The evidence review did not reveal any new treatment strategies although ongoing clinical trials of new opioid inhibitors hold promise for the future. Review of our current standard and algorithm revealed the absence of causative factors, adequate information for assessment and non-pharmacologic interventions. The standard and algorithm were revised to include possible etiology and nutritional and behavioral management strategies.

An education program is planned for all nursing staff. A pre and post evaluation of knowledge will be done to assess learning. A follow up survey will be conducted to evaluate practice change.

Constipation is a frequent clinical outcome of cancer and treatment. Although we found no changes in treatment in the evidence review, our standard required revision to include additional information for nurses to practice consistently. Re-education of staff about constipation management was needed to improve patient care.

2247 SYMPTOM EXPERIENCE AMONG BREAST CANCER SURVIVORS AND TARGETED INTERVENTIONS. Frances Cartwright-Alcarese, RN, PhD, AOCN®, NYU Hospitals Center, New York, NY.

Breast cancer survivors report continued distress resulting from symptom experience associated with the diagnosis, treatment and recovery. Breast cancer symptoms have been identified as a priority area for research (NCI, ONS, IOM).

The purpose of this study was to describe a baseline of symptoms among breast cancer survivors and to explore the relationship among the dimensions of symptom experience: number of symptoms (NOS), severity of symptoms (SOS), and amount of distress experienced (ADE), symptom clusters and multiplicative effect of numerous symptoms. This information was used to identify interventions that would target specific problems and concerns. Lazarus and Folkman’s Stress and Coping Theory guided this study and suggest that symptom experience generates specific needs that will guide the need for specific nursing sensitive problem-focused and emotion-focused interventions.

Using a descriptive, correlational design, data were collected from 131 breast cancer survivors (one month to five years post treatment) using the Breast Cancer Treatment Response Inventory, a tool that demonstrated strong psychometric properties in women with breast cancer. Descriptive statistics and a Pearson correlation matrix were calculated and reported for NOS, SOS, and ADE.

The means were: NOS on a range of 0 to 23 = 6.6 (SD = 4.04), SOS and ADE on a range of 0 – 40 = 10.9 (SD = 8.40) and 10.4 (SD = 8.92) respectively. NOS was significantly correlated to ADE (r = 0.883, p = 0.000) indicating a multiplicative effect. This suggests that women may perceive low levels of associated distress when considering symptoms individually, but when NOS increase, ADE significantly increases. Reported symptoms in descending order are: sweats/hot flashes (61.8%), difficulty sleeping (61.1%), fatigue (57.3%), emotional upset (56.7%), vaginal dryness (48.1%), shoulder/arm discomfort (46.6%), difficulty concentrating (38.2%), sexual problems (36.5%), pain (33.6%), numbness/tingling in hands/feet (29%), temperature fluctuations (27.5%), hair loss/thinning (24.4%), bowel problems (22.9%), increase in appetite (22.9%), referred sensation (22.1%), arm/breast swelling (16.9%), and vaginal discharge (12.2%). Symptom clusters that include these symptoms were identified from the literature. The findings were used to identify nursing sensitive interventions that would address specific aspects of symptom experience.

2248 NEUTROPENIA MANAGEMENT: USE OF A JOURNAL CLUB TO FORMAT CHANGE. Colleen O’Leary, RN, BSN, OCN®, Barbara Gobel, RN, MS, AOCN®, and Lesley Vancura, RN, MS, Northwestern Memorial Hospital, Chicago, IL.

An evidence based neutropenia journal club was initiated to review current evidence regarding our institutional neutropenia management policies and procedures. The current precautions seemed overly restrictive for many patients, resulting in lower patient satisfaction and nurses questioning the restrictions. Three areas of care were identified to review: neutropenic diets, restriction of flowers, plants and balloons, and the use of masks by patients while out of their room.

Journal articles from 1994 to 2004 were reviewed. Major gaps were identified as existing in evidence regarding nursing interventions in preventing and controlling infections in neutropenic patients. The role of diet in the development of infection in neutropenic patients was unclear. The review found little evidence for the restriction of plants, flowers, and balloons. There was no evidence that a neutropenic patient needed to wear a mask while out of their rooms as long as they remained on the unit that was hepa filtered.

Practice changes were proposed to the existing neutropenia precautions policy based on current published evidence. These changes also correlate with the latest ONS Putting Evidence into Practice (PEP) guidelines. The changes included discontinuing the use of a neutropenic diet, allowing fresh flowers and plants as well as balloons for non-neutropenic patients (excluding the stem cell transplant unit), allowing silk flowers for neutropenic patients and discontinuation of masks for patients remaining on the unit. In order to make these practice changes, the proposals were taken through the nursing governance structure, patient care committee and medical executive committee. The outcome was that the neutropenic diet was discontinued with specific restrictions, patients would not be required to wear masks while on the unit, and silk flowers and balloons would be allowed in patient rooms.

There has not been any increase in the number of negative events related to neutropenia. Patient satisfaction scores will be reviewed to verify an increase in satisfaction. Nurses involved in the process feel empowered to advocate for their patients based on evidence.

Allowing nurses to identify nursing sensitive patient issues and giving them to the tools necessary to make change empowers them to provide the best possible care.

2250 BMT CORE CURRICULUM: EVOLUTION OF EDUCATION. Lenore Rees, RN, BSN, MBA, OCN®, and Terry Sylvanus, MSN, APRN-BC, AOCN®, H. Lee Moffitt Cancer Center and Research Institute, Tampa, FL.

BMT nursing is recognized as an extremely challenging oncology nursing specialty. Consequently, newly hired graduate nurses or nurses inexperienced in oncology may feel overwhelmed by the
specialized skills and knowledge required to safely manage patients’ highly technical critical care needs. This situation was exacerbated in our institution by a 2-day BMT education program originally designed for experienced oncology nurses, but evaluated by recently hired staff as inadequate to meet their needs for understanding the basic principles underlying BMT nursing care.

This abstract describes the transformation of our institution’s BMT nursing education program based on changed needs reported by our newly hired nurses. The educational content of the programs and improvement in evaluation scores will be explained. Nurses’ response to the educational programs and the relationship of job satisfaction, performance and retention to education will be discussed.

After reviewing program evaluations, our BMT nursing education was changed from a 2-day program offered 2-3 times annually to three sequential programs: a one-day program, the “BMT Core Curriculum”, followed by two half-day classes, “Essential BMT Nursing Skills” and “BMT Supportive Care Issues”. Each is offered quarterly, and presented by experienced clinicians from our own staff. Educational content and time allotments were further adjusted to meet the specific educational needs of newly hired BMT nursing staff.

Newly hired BMT staff nurses’ response to these educational programs was overwhelmingly positive, ranking consistently higher on a 1 to 5 point Likert scale than the previous programs. In addition, several of our experienced staff subsequently asked to attend, and a review process has been designed by BMT Program leadership to maintain the program’s relevance and currency in 2007.

The focus and content of our BMT nursing education programs were substantially revised to better meet the expressed needs of our nurses. Further, a periodic review process was implemented to ensure the program continues to evolve with the science of transplantation and feedback of our nursing staff. Similar nursing education programs geared specifically to the needs identified by the target audience could be implemented in other facilities to improve nursing knowledge, skills, satisfaction and retention.

2251 DEVELOPMENT OF A NURSING RESEARCH FELLOWSHIP PROGRAM. Nancy Kline, PhD, RN, CPNP, FAAN, and Bridgette Thom, MS, Memorial Sloan-Kettering Cancer Center, New York, NY.

In order to expand the body of knowledge that defines the nursing discipline and provides evidence to support the delivery of patient care, research must be current and ongoing. The Research Fellowship sponsored by the Department of Nursing at Memorial Sloan-Kettering Cancer Center was designed to teach nurses the requisite skills to enable them to independently conduct clinical research projects.

The purpose of the Fellowship is to prepare nurses with the necessary knowledge and skills regarding the research process, and participate in scholarly activities related to the care of the oncology patient. Participants are expected to develop a research question or hypothesis in their particular area of interest, and design and conduct a research project.

Interested nurses complete a one-page application indicating their interest and commitment to the program, and are selected by a review committee. The nine-month program consists of didactic presentations, and one-on-one mentoring with a doctorally-prepared nurse, and research analyst. Nurse participants are given two days each month to work on their projects. They also must devote additional time to reading and preparing for their monthly research classes. Didactic content includes the following: protection of human subjects, reviewing the literature, developing a research question/hypothesis, selecting a research design, conceptual frameworks, quantitative research methods, qualitative research methods, data collection, basic statistical analysis, and submitting and presenting a research abstract.

The Fellowship program has been conducted annually since 2005, and to date 22 nurses have participated. Nurses with varying educational backgrounds and all patient care areas (e.g., inpatient, ambulatory and perioperative services) have participated. Emphasis is placed on both physiologic and psychosocial research; qualitative and quantitative methods; and designing studies that will not only improve symptom management, but also patient outcomes.

Challenges encountered have included assisting the participants in navigating the research process within the institution, and providing ongoing mentorship simultaneously to 22 nurses. However, the Fellowship has been met with resounding support from administration and from the nursing staff. This initiative is expected to increase satisfaction among the hospital’s nurses by promoting professional development, ultimately leading to higher rates of retention and enhanced patient care.

2252 A CLINICAL MODEL OF CARING FOR THE ADULT SURVIVOR OF PEDIATRIC CANCER. Roseann Tucci, MSN, ANP, Deborah Diotallevi, RN, MSN, CPNP, Elaine Pottinger, RN, MSN, CPNP, and Beth Whittam, RN, MSN, CFNP, Memorial Sloan-Kettering Cancer Center, New York, NY.

There are approximately 270,000 survivors of pediatric cancers in the United States. Approximately 1 in 640 young adults is a survivor of a pediatric cancer. The Cancer Childhood Survivor Study demonstrated that approximately 66% of survivors have at least 1 chronic complication related to their cancer therapy.

Many of these adult survivors have to navigate a complicated medical system that often is not sensitive to their needs. In response to the varied health needs of pediatric cancer survivors, long term follow up programs were developed in the 1990s. In 1991 our institution established the Pediatric Long Term Follow up Program. The team consists of a pediatric endocrinologist, two pediatric nurse practitioners and a social worker. Since its inception this program has seen 1117 patients. Many of the pediatric patients enrolled in this program are now in their 20s and are ready to transition into a program that can address their adult health care needs.

In 2005, in conjunction with a major survivorship initiative at the Center, MSKCC introduced a new program for Adult Survivors of Pediatric Cancers (ASP). Since its inception in August 2005, the ASP team has seen 125 patients, 46 of which have been direct referrals from the Pediatric LTFU program. This team consists of a family physician, two adult nurse practitioners and a social worker.

The ASP program is an extension of the LTFU. Communication between the two teams is vital. The ASP program addresses many of the issues that are problematic for the survivor of a pediatric cancer. These include second malignancies, cardiac, pulmonary, renal, and endocrine dysfunction, as well as a variety of quality of life issues, such as fertility.

Both programs assess, educate, counsel and screen survivors for long term effects related to their individual cancer treatment. A treatment summary, along with recommendations for follow up is given to each patient. Preventive health practices are emphasized.

As the number of childhood cancer survivors increase it is critical that oncology nurses have an understanding of the complexity of care needed and the services available.
2253
REGISTERED NURSES’ PERCEPTIONS AND DESCRIPTIONS OF THE BNE MANDATED PEER REVIEW PROCESS IN THE STATE OF TEXAS.
Terry Throckmorton, PhD, RN, Jason Etchegaray, PhD, and Debora Simmons, MSN, CNR, CCRN, University of Texas M.D. Anderson Cancer Center, Houston, TX.

Peer review of nurses is a formal process in Texas, but exists as an informal process in many state BNEs. Although peer review was established to support nurses in 1987 as part of the Nursing Quality Assurance Act, the general consensus is that it is neither well understood nor well perceived.

To determine nurses’ perceptions of the peer review process, how the process should be designed, and factors related to these perceptions.

The framework for this study is derived from the IOM report To Err is Human and the recommendations for error prevention including a focus away from the individual to the system.

This is a descriptive study. A packet of questionnaires including demographics, perceptions of the environment for reporting errors, and perceptions of the peer review process and recommendations for revision has been mailed to a random selection of 1% (1400) of the RNs from the Texas BNE roster. This first mailing will be followed with a postcard for nonrespondents and then by a second packet. Descriptive statistics and regression analysis will be used to analyze the data.

The findings derived from the questionnaires will include perceptions of the environment for reporting errors, of the current review process, and recommendations for appropriate review. These findings will provide a basis for decisions related to the BNE regulations and for managing error reporting in health care institutions.

The study will be complete in March.

2254
STAFF EDUCATIONAL PROGRAMS: “MULTIDISCIPLINARY TEAMS: HOW THEY WORK AND THE BENEFITS TO OUR PATIENTS.” Joan Livingstone, RN, BScN, OCN®, Marica Lodej, RN, BSN, and Clara Hergert, MSN, RN, OCN®, APRN, BC, Karmanos Cancer Center, Detroit, MI.

The outpatient clinics in our cancer center have adopted the use of multidisciplinary teams to provide quality patient care. The use of multidisciplinary teams was a new concept to our cancer center and the inpatient staff expressed an interest in learning about what role the oncology nurse played in this team.

The objective of the educational program was to educate the inpatient staff what role oncology nurses plays in the outpatient clinic multidisciplinary teams. Education included how a multidisciplinary team works and how it benefits the patient in our cancer center.

Educational power point presentation was presented to the staff in the institution wide nurse practice, preceptor meeting and during nursing grand rounds. The power point presentation included the evidence behind a multidisciplinary team, who is included in the team, how the team works together to provide quality patient care and the oncology nurses role within the team.

The feedback from the staff that attended the nurse practice and preceptor meeting was positive. The program was then made into a nursing grand round presentation for all staff to be able to attend.

The staff members that attended the presentation stated they had a knowledge of how the multidisciplinary teams worked and what the oncology nurses role within the team.

The division of inpatient and outpatient staff often makes it difficult for each to know what the other is doing. By providing educational programs about the role of the oncology nurse in each setting helps to increase this knowledge of the staff members. The staff members learn how each team member works within the cancer center as well as with the patients.

2255
TELECOMMUTING FOR NURSES: DEVELOPING A MODEL FOR THE OUTPATIENT ONCOLOGY NURSE. Diane Paoliili, RN, MSN, AOCN®, Kim Mertens, MSN, RN, AOCNS, Catherine Wickersham, BSN, RN, OCN®, and Elizabeth Rodriguez, MA, RN, Memorial Sloan-Kettering Cancer Center, New York, NY.

The current nursing shortage has stressed efforts to recruit and retain oncology nurses in the outpatient setting. Providing opportunities for flexible work environments could address some of these challenges. Telecommuting is defined as an employee who uses telecommunications equipment to work from home or a secure remote location. Although workers have been telecommuting for over 20 years, there is limited literature and use of telecommuting within nursing. This presentation will discuss an innovative approach to developing a telecommuting proposal for the outpatient office practice nurse.

The thoracic oncology nurses at this NCI designated comprehensive cancer center explored the use of telecommuting in the outpatient office practice setting. The purpose of this project was to develop and present a proposal for telecommuting.

Based on a review of the literature and consultation with the human resources department, written guidelines and a proposal for presentation were developed. This proposal outlined criteria for staff selection, responsibilities of the staff, and timeframe of the pilot. Human resources provided information on the existing institutional policy and current statistics on hospital staff who telecommute. Security concerns, equipment, and technical support issues were addressed.

The proposal was presented to the nursing leadership group for consideration, and later presented to a nursing council as part of their inquiry to consider telecommuting as a retention strategy. The proposal was well received by all groups.

This presentation will review the process for developing a telecommuting proposal and discuss the benefits of telecommuting in health care as demonstrated in the literature. The creation of this proposal is an example of how nurses can apply a novel idea into practice. Further development of this project would include piloting the telecommuting proposal and assessing the impact on nurse recruitment and retention.

2256
NURSING THE VIRTUAL BREAST CANCER PATIENT. Kathleen Taylor, RN, Gwen Wright, BSN, RN, Anita Winston, BSN, RN, Cindy Zeiko, RN, and JoAnn Maklebust, MSN, RN, APRN-BC, AOCN®, FAAN, Karmanos Cancer Center, Detroit, MI.

Nurses expressed a desire to learn more about what their patients may encounter during all phases of treatment so they would be better prepared to answer patient or family concerns. Nurse preceptors from four clinical areas (the out-patient breast clinic, the inpatient surgical unit, the Radiation Oncology Center and the outpatient chemotherapy area) expressed a knowledge deficit concerning what a patient may experience in areas other than their own. It was decided to create a presentation to educate the nurse preceptors.

The purpose of the presentation was to educate the preceptors who could, in turn, educate staff nurses about the experiences a breast cancer patient may encounter as she progresses through the com-
prehensive cancer center. The presentation emphasized the patient’s point of view.

A “virtual” patient was created and her experiences in the cancer center were described by nurse preceptors from four different areas of the hospital. Each preceptor presented an overview of what may occur as the “virtual” breast cancer patient received treatment in their area. The process was described from diagnosis through surgery, recovery, chemotherapy, and/or radiation therapy. The patient’s various tests, treatments, side effects and emotional needs were addressed by the nurse preceptor from each area.

After the program was presented at the Preceptor meeting, an abstract was submitted, accepted and presented twice at Nursing Grand Rounds. Formal evaluation forms were distributed and completed and the nurses were awarded Continuing Education Units. The nurses who attended Grand Rounds expressed gratitude for the knowledge gained. They not only learned what the patient experienced but also what care was provided by nurses from the various areas.

Staff nurses attending Nursing Grand Rounds requested that virtual patients experiencing other diagnoses be offered. Offering educational opportunities for staff nurses increases their ability to provide a better level of care for their patients. When staff nurses gain additional knowledge, they become more competent addressing patient’s concerns. As job performance improves, nurse satisfaction increases. Increased nurse job satisfaction also positively impacts patient satisfaction.

**2257**

**REVELATIONS AND REFLECTIONS OF THREE COMMUNITY BASED GENETICS PROGRAMS.** Marilyn O’Donnell, RN, BSN, OCN®, Mercy Cancer Center, Des Moines, IA; Lila Courtney, ARNP, Mercy Cancer Center, Mason City, IA; and Twilla Westercamp, RN, BSN, OCN®, GCN, Alegent Health, Omaha, NE.

Cancer genetics continue to revolutionize the field of oncology for patients, professionals and the public. In order to serve the increasing numbers of patients in need of cancer risk assessment and possible genetic testing, community based genetic programs have positioned themselves to provide a wider access to services outside the academic setting.

This presentation will compare and contract the successes and challenges of three community based oncology genetic programs in the Midwest:

- Mercy Cancer Center-Des Moines, Iowa
- Mercy Cancer Center-Mason City, Iowa
- Alegent Cancer Center-Omaha, Nebraska

These community based cancer centers identified the need for genetics to be incorporated into their practice settings and set out to accomplish that goal. These programs were nurse initiated and are nurse coordinated. Each program was unique in their development and the models that were adapted. These nurse coordinators realized the importance of translating science into a language that can be understood by all and recognized the opportunity and challenge to provide leadership in the design of healthcare services in the field of genetic cancers. Each center was unique in how the program was initiated and designed, as well as the successes and setbacks they encountered along the way. This presentation will compare and contrast the three program’s development, initiation and evolution.

Each center was unique in how the program was initiated and designed, as well as the successes and setbacks they encountered along the way. This presentation will compare and contrast the three program’s development, initiation and evolution.

All centers needed administrative and physician support which was achieved by a variety of methods. While genetic testing may not be right for everyone, it is the belief and mission of these cancer centers, that all appropriate individuals should be given the option.

The one overriding goal was to open up access to genetic information at the local/regional area, which allows all cancer patients served at these facilities to receive the most current genetic information necessary. These nurses also recognized the opportunity and challenge to provide leadership in the design of healthcare services in the field of cancer genetics.

The uniqueness and successes of these three community based programs point to exciting pathways to the future of oncology genetic services offered in communities across the country.

**2258**

**OPTIMIZING COMBINED MODALITY PATIENT OUTCOMES THROUGH INTENSE NURSING CARE COORDINATION AND MANAGEMENT.** Lorraine McEvoy, RN, MSN, OCN®, and Janine Kennedy, RN, BSN, MA, OCN®, Memorial Sloan-Kettering Cancer Center, Basking Ridge, NJ; and Mary Elizabeth Davis, RN, MSN, AOCNS, Memorial Sloan-Kettering Cancer Center, Sleepy Hollow, NY.

Patients’ receiving combined modality treatment (CMT) with both chemotherapy and radiation therapy present a significant challenge for management in the out patient setting. The side effects from both therapies can overlap and cause significant patient complications. Toxicities, such as mycositis, diarrhea, pain, and myelosuppression have historically led to disruptions in the treatment delivery to the patient, and in extreme circumstances, hospitalizations or death.

In order to meet the challenge of preventing complications and improving patient outcomes, nurses in two ambulatory centers of a major cancer center created the CMT Nursing Meeting. Patients’ beginning, currently on, or having recently completed CMT are discussed in a multi-disciplinary forum.

At the weekly CMT Meetings radiation, medical oncology and chemotherapy nurses, facilitated by Clinical Nurse Specialists, meet and review the patients. Social workers, Pharmacists and Dietitians also attend. Problem lists are created for each patient, which include potential and actual problems and the strategies to deal with them. The list is then presented by the nurses at a weekly multi-disciplinary meeting, where it is reviewed by the physicians. The input from the physicians rounds out the coordination of care for these complex patients.

This approach has led to the creation of a supportive nursing role. The Intervention Nurse was created to assist the primary care nurses with daily comprehensive assessments, on-going patient education for self care, mouth sprays, skin care, and nutritional support. The Intervention Nurses at both sites are experienced oncology nurses who received additional training at the cancer center’s main campus in Radiation Oncology and wound care. Through electronic documentation of the Intervention Nursing visits, all staff is well informed of each patient; this facilitates a rapid response when new issues are identified.

This pro-active management of toxicities has reduced the number of treatment- related hospital admissions and has improved patient care- all, in an out-patient community setting. We have been able to capture toxicities and complications at the beginning stages, thus leading to improved patient outcomes.

This new multidisciplinary method has been successful in improving safety and the coordination of care for these very complicated patients.
RAISING THE ANTE: ATTRACTING AND RETAINING HIGH QUALITY CANDIDATES IN A COMPETITIVE HEALTHCARE ENVIRONMENT. Denise Rutkowski, RN, MS, OCN®, CRC, Roswell Park Cancer Institute, Buffalo, NY.

Previous research has demonstrated the challenges and difficulties in recruiting and retaining highly desirable employees. Recruitment statistics define critical factors that influence a nurse’s decision to accept a job offer.

This presentation will define key factors that have been identified as influencing a decision to accept employment at Roswell Park Cancer Institute (RPCI) over other healthcare facilities. Programs and initiatives that have encouraged longevity will be identified and discussed.

The following factors have been shown to favorably effect a nurse’s decision to accept an employment opportunity at RPCI:

- Staffing ratios
- Educational opportunities and professional development
- Shared governance and autonomy
- Longevity of current staff
- Career ladders

Staffing ratios have emerged as a critical value to interviewees. In this time of nursing shortages, RPCI is still able to provide good nurse to patient ratios, without supplementing staff with travel nurses. This helps to ensure staffing consistency which is attractive to recruits. New staff desire coworkers with experience and a predictable work environment.

Career ladders are attractive to novice and seasoned employees. Providing opportunity and the tools for the “bedside” nurse in the format of a career ladder allows staff to develop and be rewarded while maintaining direct patient care.

Our statistics have illustrated that several factors, including a sense of autonomy, combined with job security and favorable staffing ratios have allowed RPCI to attract the “Best and the Brightest” nursing candidates when faced with significant competition from other healthcare facilities.

By creating a professional environment, RPCI recruits and retains nurses passionate and committed to Oncology Nursing. This results in a stable and growing work environment. Most importantly, it fosters good patient outcomes and positive patient satisfaction scores.

HELPING TO CROSS THE BRIDGE TO ONCOLOGY: DEVELOPING THE PRECEPTOR OF ONCOLOGY NAIVE NURSE IN AMBULATORY. Diane Paolilli, RN, MSN, AOCN®, Elizabeth Rodriguez, MA, RN, and AltAGRacia Mota, MSN, RN, OCN®, Memorial Sloan-Kettering Cancer Center, New York, NY.

The current nursing shortage, coupled with an aging workforce presents many challenges for recruiting and retaining nurses in the outpatient oncology setting. In the past, two years of experience was required in order to be considered for employment in the treatment unit. This limited our recruitment pool and excluded the oncology naive and graduate nurses. At this institution the Bridge to Oncology program was created to recruit and support the oncology naive and new graduate nurse. Consequently, it was identified that the preceptors for the novice nurse would also require additional training.

Novice nurses possess unique characteristics and learning needs, challenging the most seasoned preceptor. As a result, a specialized program was developed for the preceptor. This presentation will outline the Bridge to Oncology preceptor program and share the evaluations from the participants of this program.

A NURSING JOURNAL CLUB TO HELP PROMOTE EVIDENCE BASED PRACTICE IN THE PRIVATE PRACTICE SETTING. Cathy Fortenbaugh, RN, MSN, AOCN®, and Kim Consalvo, RN, BSN, OCN®, Pennsylvania Oncology Hematology Associates, Philadelphia, PA.

Integrating new research findings, best practices, and guidelines can be challenging for both staff nurses and advance practice nurses in the private practice setting. A Journal Club can be established to meet these challenges.

To establish a Journal Club for all nurses in a private practice to address relevant clinical topics, increase interaction among nurses in various aspects of the practice, increase nursing knowledge, standardize care, and promote evidence based practice changes.

A quarterly journal club was established and all practice nurses including staff nurses, managers, research nurses, and advance practice nurses were invited to participate. One person was assigned to select the topic, distribute the article/s and lead the discussion. Participants were responsible to read the article/s and come prepared to discuss the topic. The Journal Club was held directly after clinic hours in the conference room and dinner was provided. Finding the ideal time and place for the group to meet and sustaining long-term interest were perceived at the groups inception to be potential challenges. Topics in 2006 included peripheral neuropathy, mucositis, neutropenia and pain.

The journal club was very well received and attended throughout the year. Excellent discussion took place at each meeting. Contact hours were offered with some of the articles. Staff verbalized that they appreciated this method of learning and interaction. In addition it increased team spirit. Practice changes were introduced as a result of the discussions. Based on the positive feedback the Journal Club will continue forward in 2007.

Journal clubs are an ideal way to disseminate evidence and improve nursing care. It worked well in the private practice setting but could be adapted to fit any setting.

HPV VACCINE—AN EVALUATION OF THE EVIDENCE SUPPORTING ITS USE. Carol Dallred, RNC, MSN, WHCNP, and Joyce Dains, DrPH, JD, RN, FNP, BC, NAP, University of Texas M.D. Anderson Cancer Center, Houston, TX.

Cervical cancer is the second most common cancer in women in the world and, the American Cancer Society predicts that there will be about 9,710 new cases of invasive cervical cancer in the US with about 3,700 deaths from this disease in 2006. The use of the pap
smear over the last four decades has resulted in a 70% reduction in the morbidity and mortality of cervical cancer. Yet 1.7 billion dollars is spent in the U.S. annually on cervical cancer treatment. Additional research over the last 30 years has indicated that HPV must be present in order for cervical cancer to occur. During the past year an HPV vaccine was approved by the FDA for use in females between age 11 and 26. Is the most cost effective way to reduce the burden of cervical cancer in all populations prevention of the disease itself through vaccination against HPV (Human Papillomavirus)?

The purpose of this project is to provide outpatient nurses and advanced practice nurses, involved in cervical cancer prevention, evidence about the effectiveness and tolerability of the HPV vaccine and its use in clinical practice.

A comprehensive exploration of the online databases CINAHL and PubMed was executed using the following search terms: cervical cancer, HPV, vaccine, effectiveness, tolerability, administration of vaccine, and side effects. A summary table was developed describing evidence of populations studied, research designs, and outcomes and relevant findings that may be applied to practice.

The literature revealed that extensive data is available on the topic due to large research studies regarding the target populations and HPV vaccine. Further research regarding use in males and development of multivalent vaccines still needs to be completed.

The results from this evidence-based practice activity will be presented with suggestions for nursing practice guidelines regarding the use of current and future HPV vaccines.

2264
NEW GRADUATE NURSES IN THE OUTPATIENT TREATMENT UNIT—NEW APPROACHES TO STAFFING. Diane Paolilli, RN, MSN, AOCN®, and Elizabeth Rodriguez, MA, RN, Memorial Sloan-Kettering Cancer Center, New York, NY.

In light of the current nursing shortage and increasing volume of patient treatments in outpatient care at this institution, seeking new approaches to hiring, orienting and retaining nurses to work in ambulatory oncology is paramount.

Historically only nurses with two years oncology experience were hired. A task force formed to consider new approaches to hiring including the recruitment of new graduate and oncology naïve nurse to the outpatient treatment unit.

A key goal of the task force was to provide the support necessary to ensure the success of the novice nurse. The task force designed a comprehensive program to hire, educate and support the novice within the outpatient setting offering these nurses a “Bridge to Oncology”.

The group developed a program with a multi-faceted approach based upon a review of the literature and consultation with experts both within and outside the institution. Eligibility criteria and a process for interviewing were developed in collaboration with nurse recruitment. The task force divided into two groups, one dedicated to developing a preceptor program, the other focused on the development of an orientation pathway.

The task force utilized several different strategies to influence the organizational culture as it relates to hiring novice nurses in the outpatient setting. Initiatives to support change included inservice for the current staff, training for the precepting nurse, and ongoing support for the new nurse and preceptor scheduled throughout the first year.

Expanding the recruitment pool may be an effective way to address staffing concerns. To date seven nurses have successfully completed this program. The success rate of these nurses suggests that new graduate nurses are an effective resource for an outpatient treatment unit.

Based on evaluation feedback a structured and focused orientation are necessary components to ensure the success of the new graduate nurse. Given our experience to date, the program continues to be offered on a biannual basis. Future directions may include application of this model to other positions within the outpatient setting.

2265
“UNIQUE OPPORTUNITIES IN BREAST CARE MANAGEMENT”: AN EDUCATIONAL SYMPOSIUM BRINGING BEST PRACTICE MODELS FOR BREAST CANCER MANAGEMENT TO COMMUNITY HOSPITALS. Elaine Sein, RN, BSN, OCN®, Fox Chase Cancer Center, Rockledge, PA; Joan Wagner, RN, MSN, CRNP, Fox Chase Cancer Center, Philadelphia, PA; Darcy Burbage, RN, MSN, AOCN®, Christiana Care Health System, Christiana, DE; and Pamela Vlahakis, RN, CEN, CRN, Hunterdon Medical Center, Flemington, NJ.

In order to provide comprehensive care to patients close to home, more community-based cancer programs are developing interdisciplinary disease management programs. Breast cancer is the largest cancer population treated in the community. Thus the need was identified to offer an educational symposium for Oncology Nurse Breast Care Navigators (ONBCNs) in order to provide them with accurate information, available resources, and access to a variety of successful best practice model programs. Additionally, the American College of Surgeons is discussing possible certification for breast centers and the Oncology Nursing Certification Corporation is exploring credentialing for breast health nurses.

The purpose of this symposium was to provide a clinical and administrative track with a special focus on Breast Care Program Development and Novel Patient Care Management Strategies. This program would help the ONBCN successfully coordinate the development of breast programs.

Fox Chase Cancer Center (FCCC) and FCCC Partner (FCCCP) institutions planned the content for “Unique Opportunities in Breast Care Management” based on results of an educational needs assessment. Distinguished faculty included members of FCCC and FCCCP Breast Care Navigator group as well as national oncology speakers. The two-day program offered clinical practice updates; strategies for successful development of community-based breast care programs and best practice models for program implementation. A resource toolbox of best practices in program implementation was displayed and ONBCNs fielded questions related to their role, models of care and unique programs. An evening social event allowed for informal networking.

Ninety-eight oncology nurses and cancer program administrators from 10 states attended the symposium. The vast number of positive responses from the program evaluations indicated that the attendees had their learning needs met. They appreciated the forum for discussion on comprehensive breast care with high caliber presenters, networking, and sharing of best practice. Some suggested it be offered annually.

The outcomes of this symposium have broad implications for enhancing cancer care in the community. Blending the expertise of academic institutions with community partner institutions they serve provides patients and health care professionals with best practice guidelines and models for care. Similar cancer education symposiums can help oncology nurses develop comprehensive cancer programs.

2267
A PROJECT TO PROMOTE EDUCATION AND PROFESSIONAL DEVELOPMENT: INCREASING THE NUMBER OF AMBULATORY STAFF THAT HAVE ONCOLOGY NURSING CERTIFICATIONS (ONC). Christine Liebertz, RN, CS, MSN, AOCN®, Memorial Sloan-Kettering Cancer Center, New York, NY.

As oncology nursing care becomes more complex and as the challenges of an aging and dwindling workforce complicate the future of
patient care, new strategies are needed to engage, develop and maintain the professional commitment of our workforce. Studies indicate that certified nurses experience personal and professional growth and development, leading to greater job satisfaction and retention. Examination preparation increases knowledge of the complexities of oncology nursing care and standards for practice.

At this NCI designated cancer center our Ambulatory Education and Professional Development Council chose an ONC project as a strategy to affect the education and development of our nursing staff.

Our council developed a survey that queried the ambulatory nurses about certification status and attitudes. Of the 337 (42 % ONC) nurses we received 207 (48% ONC) responses to our initial survey. The majority of nurses were certified for personal or professional development (68%) and the main reason for not being certified was lack of financial (42%) or institutional support.

To raise awareness and educate nurses about ONC, a slide presentation was developed for presentation at staff meetings to review benefits, available financial support, application processes, and preparation methods. Council members serve as resources and the presentation and internet sources are available on the nursing web for future reference. Survey results were shared with nursing leaders to explore methods of addressing barriers identified in the survey. Coordinated efforts with other ambulatory councils are exploring other ways to reward nurses for ONC such as plaques, ceremonies, and newsletters.

The ambulatory nursing staff will be resurveyed in 12-18 months to reassess certification status and attitudes toward ONC.

ONC is one method for encouraging professional development and education. Our council developed a plan to educate nurses about certification and is exploring ways to improve institutional support. This presentation will review our council’s survey and ongoing project to increase the number of ambulatory nurses who have ONC. This presentation can offer direction to other oncology settings where the challenge of ensuring nursing commitment to oncology care is so important to our future.

2270 SUPPORTING COMMUNITY EDUCATION: A COLLABORATIVE EFFORT BETWEEN VOLUNTEER ORGANIZATIONS TO DEVELOP A HEMATOPOIETIC STEM CELL TRANSPLANT PATIENT AND CAREGIVER EDUCATIONAL SYMPOSIUM. Kathleen Castro, RN, MS, AOCN®, National Institutes of Health Clinical Center, Bethesda, MD; Katharina Sampl, RN, MSN, AOCNP, Arlington-Fairfax Hematology-Oncology, Arlington, VA; Sophia Grasmeder, RN, BSN, OCN®, National Institutes of Health Clinical Center, Bethesda, MD; Beatrice Miller, RN, MS, OCN®, Holy Cross Hospital, Silver Spring, MD; Sandra Mitchell, CRNP, MSN, AOCN®, National Institutes of Health Clinical Center, Bethesda, MD; Sarah Singer, BCD, LICSW, Leukemia & Lymphoma Society, National Capital Area Chapter, Alexandria, VA; and Claudia Soho, RN, BSN, OCN®, CCRP, Westat, Inc., Rockville, MD.

Hematopoietic Stem Cell Transplantation (SCT) is a potentially curative yet highly intensive treatment for a variety of hematologic and oncologic diagnosis. With improved supportive care and reduced-intensity conditioning regimens, this option is available to an expanded number of patients. A forum for patient and caregiver education concerning SCT and the effective self-management of early and late effects of treatment was identified as a need in our community.

Oncology Nursing Society (ONS) chapters have a history of providing outreach education and support to local communities. Partnering with the local chapter of the Leukemia and Lymphoma Society (LLS), our ONS chapter developed a one-day symposium designed to educate SCT recipients and caregivers about optimal self-care during and following transplant.

A planning committee of Washington, DC ONS chapter members and LLS staff was formed. Evaluations obtained from LLS-sponsored support groups and patient education programs were reviewed to determine needs. The target audience was identified as patients and caregivers pre and post SCT. The symposium kicked off with a keynote presentation by two cancer survivors on positive reframing and courageous problem-solving. Participants were then offered a variety of breakout sessions (addressing topics such as fatigue, nutrition, symptom management, medication management, caregiving, graft-versus-host disease (GVHD) and complementary therapies) and chose those sessions most relevant to their circumstances. Demonstrations of complementary therapies were available for participants throughout the day. The symposium ended with an Expert Panel comprised of a post-transplant patient and two physicians.

Thirty-five people attended the symposium, 23 completed an evaluation (approximately half patients and half caregivers). The majority of respondents had completed their SCT procedure. Approximately 85% reported that the symposium was beneficial and the content was appropriate and comprehensible. The Expert Panel and breakout sessions on fatigue and GVHD were identified as most helpful. Many participants asked for future symposiums and gave suggestions for topics of interest.

Our partnership capitalized on the supportive care expertise of oncology nurses and the advocacy and program planning skills of LLS. This program offers a model that other chapters may apply in developing community outreach initiatives.

2272 STRESSORS IN ONCOLOGY NURSING: POTENTIAL SOURCES OF ABSENTEEISM AND TURNOVER. Terry Throckmorton, PhD, RN, University of Texas M.D. Anderson Cancer Center, Houston, TX.

It is estimated that, by the year 2020, the U.S. will need 2.8 million registered nurses, almost 1 million more than will be available. Older nurses are retiring and enrollment has been down. Retention of skilled nurses is both a safety issue and a financial need for health care institutions. Attention to personal and environmental factors that affect nurses is essential for retention.

The purpose of this presentation is to explore sources of stress for oncology including personal and secondary post-traumatic stress syndrome that have previously been overlooked.

A review of the literature was conducted to define and link these sources of stress in terms of their effect on nurses in general and oncology nurses in particular using Figley’s work on PTSD as a beginning. Explanatory articles and research were explored for supporting evidence and potential approaches to management.

Using the criteria from Figley’s model and the available research, sources of stressors, symptoms, and potential interventions were identified.

Although this concept is relatively new in relation to nurses and their work, there is beginning evidence that nurses’ personal stressors throughout life and their exposure to patients with the traumatic experience of cancer can dispose them to a type of secondary post-traumatic stress syndrome that is to be differentiated from burnout. Prevention and treatment follow a similar pattern to those for disaster workers and military personnel who are exposed to trauma.

2273 ENEMA USE PROHIBITED IN THE NEUTROPENIC AND THROMBOCYTOPENIC PATIENT: WHAT IS THE EVIDENCE? Elizabeth Sorensen, MSN, APRN, BC, UT M.D. Anderson Cancer Center, Houston, TX.

Constipation is a common side-effect experienced by many cancer patients that may be related to chemotherapy agents, opioids for pain
management, diet change, decreased mobility, or altered bowel habits. Another common side-effect related to cancer and its treatment is bone marrow suppression resulting in neutropenia and thrombocytopenia. Currently, enema and suppository administration is prohibited in patients with neutropenia and/or thrombocytopenia due to the risk of bowel perforation, infection, or uncontrolled rectal bleeding. Although the policy is based on solid rationale, no evidence exists to support it. Furthermore, the nurse and patient are left with few options for constipation management aside from oral route medications, which may be difficult to tolerate because of nausea, vomiting, or NPO status. Also, in the case of possible bowel obstruction or impaction, oral route medications may be less effective and rectal route may be required for treatment of the condition and to prevent perforation.

The purpose of this project is to identify and evaluate the evidence supporting the practice of enema prohibition for treatment of constipation in the thrombocytopenic/neutropenic cancer patient and to outline guidelines regarding the approach to treatment in this special population.

An extensive search of the online databases CINAHL and PubMed was performed using the following search terms: constipation, chemotherapy, enema, thrombocytopenia, neutropenia, infection, and bowel perforation. Institutional policies and procedures and the Oncology Nursing Society guidelines were reviewed. An evidence summary table was developed that describes populations studied, research designs, outcomes and relevant findings that may be applied to practice.

A critical appraisal of the literature revealed that limited data were available on the topic due to lack of research regarding the target population and intervention. The results from this evidence based practice project will be presented with suggestions for further follow-up and investigation into the practice using randomized controlled trials in order to update practice guidelines.

2275
IMPLEMENTING EVIDENCE BASED PRACTICE IN A COMMUNITY BASED FACILITY. Teresa McLaughlin, RN, MSN, AOCN®, Cindy Zaplinski, RN, MSN, and Mary Alice Koleszar, RN, OCN®, St. Vincents Medical Center, Bridgeport, CT.

Oncology nursing is always changing and oncology nurses must update and maintain practice controls to achieve safe and quality care for our patients. From febrile neutropenia to chemotherapy administration there are many challenges for the oncology nurse.

Development of a Unit Based Oncology Practice Council was established to examine time restraints, attention to detail, and implement evidenced based practice as it pertains to oncology nurse practice. It is imperative to achieve the quality outcomes we desired by implementing evidence based practice. One of the issues the Council focused on was creating oncology specific plan of care sets and examining nurse sensitive outcomes like prevention of infection and safe chemotherapy administration.

The Unit Based Oncology Practice Council worked together to ensure that nursing interventions and nurse practice was driven by dedicated nursing practice, research, and incorporated patient education. The council developed and implemented a Chemotherapy Plan of Care and a Myelosuppression Plan of Care.

Evaluations were done via active open chart audits and ongoing nurse education. Audits looked at timeliness of implementation, proper completion, timeliness of interventions, and documentation of achieved goals. Conclusions thus far conclude that nurses are dedicated to quality care and desire better outcomes for patients. Practice is evolving away from ineffective interventions.

Providing the Council to enforce evidence based practice helped the nurses determine the interventions that are most effective to improve outcomes. The Council also realized that nursing sensitive patient outcomes provides a means for nurses to define their role objectively and achieve quality patient care.

2276
REDUCING THE INCIDENCE OF PHLEBITIS IN GI SURGERY UNIT: NURSER’S ROLE. Ellen Mullen, RN, BSN, ANP, GNP, and Daniel Mullen, RN, ADN, M.D. Anderson Cancer Center, Houston, TX.

Phlebitis is the most common complication of intravenous infusion and its reported incidence varies between 30 and 70% of infusions. Many factors contribute to its development, which makes prevention difficult. In the oncology surgical setting, patients are admitted with multiple IV sites post-operatively. Most of the time, patients already have fragile veins from previous chemotherapy treatment of their cancer. This makes it very important for nurses to preserve the IV sites. However, preserving the IV can lead to more problems. Nurses must be knowledgeable on how to assess and recognize signs of phlebitis. The monitoring of the IV sites is only done once per shift. Due to increased incidence of phlebitis and knowing that prevention can prevent further complications, frequent monitoring of IV sites has been implemented.

The purpose of this project is to reduce the incidence of phlebitis through frequent monitoring of IV sites. All patients admitted from Post-anesthesia care unit will be assessed by a registered nurse and all IV sites will be documented.

The nurse’s role in the prevention of phlebitis includes baseline assessment of IV sites and documenting the grading criteria. Frequent monitoring is defined as every 4 hrs instead of once per shift. All peripheral IV’s should be flushed daily and documented in the medication administration record. Once symptom of phlebitis occurs, the nurse must monitor the site very closely and if continues to progress (redness and warmth, edema and even fever), the IV needs to be removed immediately and the primary team is notified. Warm moist compress over 72 hrs is the best treatment along with nonsteroidal anti-inflammatory drugs (if ordered).

The overall goal of the project is to reduce the incidence of phlebitis through frequent monitoring of IV sites. The nurse should be able to identify early signs of phlebitis and know when to remove the IV catheter and when to notify the primary team.

The presentation will include discussion of causes of phlebitis, grading criteria, and nursing interventions in the prevention and management of phlebitis. The nursing implication is including checking IV sites as part of vital signs and proper documentation.

2278
HISTORICAL PERSPECTIVES ON DO NOT RESUSCITATE ORDERS AND ADVANCE DIRECTIVES IN PATIENT CARE. Judith Payne, PhD, RN, AOCN®, Duke University School of Nursing, Durham, NC.

Advances in medical technology have created a new relationship between medicine and society. Decisions about resuscitation and other life-sustaining treatments, once intensely private, have become matters of public debate and community concern. It is no longer clear whether all available technology must be used to preserve life. Rather, in light of the increasing array of technologies to extend life, society has become more concerned about the individual’s right to determine how that technology will be used. The uncertainty, confusion and general lack of knowledge about do not resuscitate (DNR) orders and advance directives has created a slippery slope for all, and especially difficult for those in oncology.

The purpose of this presentation is to provide an overview of the history of DNR orders and advance directives, and examine the
clinical implications for nursing practice. The theoretical framework guiding this paper are components from ethical and legal doctrines and from the conceptualization of self-determination.

A synthesized review of relevant literature provided a historical overview of DNR orders and advance directives. A review of legal doctrines, pertinent guidelines, and professional position papers currently guiding clinical decision making regarding these sensitive issues will be presented.

A review of papers in the rare documents section of a university-based library and literature related to DNR and advance directives was conducted. Examination of historical and current documents provided an evaluative measure of how these concepts developed, reflect current practice, and how they influence our clinical decision making and education efforts today.

The development of new technologies has made it increasingly clear that medical choices involve moral choices. The need to balance competing values in our delivery of care often gives rise to conflict and uncertainty. This uncertainty is heightened by limited, and sometimes conflicting, information from legal and ethical scholars in a field where technological advances increase faster than legal precedents. Since the legal process is often not well-suited to respond to urgent clinical decisions about individual medical treatments, it is imperative that nurses and physicians develop a process whereby these decisions will be handled effectively and timely.

2280
ADDRESSING TREATMENT CHALLENGES IN THE OLDER PATIENT WITH CANCER. Anne Anselmo-Murphy, MSN, RN, APRN, BC, AOCNP, Cancer Institute of New Jersey, New Brunswick, NJ; and Frances Cartwright-Alcarese, PhD, RN, AOCN®, NYU Hospitals Center, New York, NY.

In the year 2030, 20% of the U.S. population will be 65 years and older. Because the majority of cancers are diagnosed in this age group, cancer in the older adult will reach epidemic proportions. Data from treatment studies that include older patients reveal that survival outcomes are similar when compared to their younger counterparts. The older adult is often not considered eligible for treatment based solely on chronological age. “Such assumptions have and continue to limit the adequacy of research, appropriateness of care, and currency of education within cancer care” (Oncology Nursing Society and Geriatric Oncology Consortium Joint Position on Cancer Care in the Older Adult 2004).

This paper will propose a standardized method to provide evidence based care to the older patient with cancer. Strategies to evaluate physical, psychological, social, and financial factors that influence treatment decision making is included. Symptom experience and quality of life outcomes are discussed. Professional and patient education is described.

The elements of a program of care for the elderly patient with cancer include: 1)The Comprehensive Geriatric Assessment (CGA), a systematic review of patient factors that affect the course of the disease and treatment outcome, 2)Interventions that influence nursing sensitive outcomes: symptom experience and quality of life to support the patient through and beyond treatment goals, 3) Professional Education: a)promote the CGA as a standard screening tool in oncology, b) description of current evidence based treatment, c) discussion of the elderly oncology patient onto clinical trials, and d) patient education needs, and 4) Patient Education: discussion of the patient and family as a partner in the treatment decision making process.

Outcome measures to evaluate the success of this program in this population are: survival, disease free survival, accrual into clinical trials, hospitalizations and length of stay, and quality of life outcomes.

The older patient with cancer requires specific evaluation and treatment strategies to ensure good symptom control, quality of life and clinical outcomes. The oncology nurse plays a pivotal role in advocating for the “best evidence based care” for the older cancer patient.

2281
IMPROVING SKIN CARE OF THE PEDIATRIC BLOOD AND MARROW TRANSPLANT PATIENT. Michelle Smith, RN, BSN, Michelle Frey, RN, MS, AOCN®, and Joanne Kurtzberg, MD, Duke University Hospital, Durham, NC.

Infection remains the leading cause of mortality and morbidity in the immune-suppressed patient. The risk of infection is dramatically increased when the body’s basic defenses are altered and lack normal infection fighting capabilities. The skin is the largest organ of the body and the most frequently affected. Patients undergoing chemotherapy, radiation, and/or marrow ablation (bone marrow/ stem cell transplantation) are at even greater risk for life threatening infection as a result of skin breakdown. Additional insults such as graft-versus-host disease, engraftment, respiratory and systemic infections, increased need for oxygen and prolonged immobility place the patient at even greater risk.

The purpose of this poster is to describe the Duke Pediatric Blood and Marrow Transplant program Skin Care Initiative. This program was developed in 2001 in an attempt to reduce infection and morbidity associated with skin breakdown. The goals of this program were to develop and implement strategies to ensure early detection of patients at risk for skin breakdown and to standardize the plan of care. Each unit within the hospital designates a “unit-based” skin care champion who is responsible for the oversight of patients and the education of staff. The program has detailed guidelines and procedures for the prevention of skin breakdown and strategies for early intervention and treatment.

The pain champion is responsible for monthly audits of all patients. The audits evaluate the effectiveness of the interventions as well as the documentation of skin integrity. The data is reviewed by unit and Hospital leadership and is reported and trended via the National Database of Nursing Indicators (NDNQI). By performing thorough skin assessments on all pediatric bone marrow and stem cell transplant patients, we can decrease the incidence of skin breakdown and lessen the severity of patients’ suffering, risk for infections, length of stay and ultimately, mortality.

2283
RADIOPROTECTION WITH AMIFOSTINE: WHAT CAN BE DONE TO HELP PATIENTS TO COMPLETE THERAPY? Linda Carlin, RN, MSN, OCN®, Thomas Johns Cancer Center, Richmond, VA.

Amifostine (Ethylol) is a radioprotectant used to help prevent or lessen mucositis, xerostomia, and esophagitis reactions from radiation therapy treatments to the head and neck area, lung, esophagus and rectal area. Thus, treatment with this agent would be desirable in lessening these toxicities associated with radiation. However, this drug itself has many side effects and patients frequently need to stop it because of them.

The purpose of this project was to evaluate the use of premedications used with Amifostine prior to daily radiation treatments, the effect of these premedications, the tolerability of Amifostine and the severity of side effects of the radiation therapy.

A retrospective chart review of patients undergoing external beam radiation to the head and neck area, lung, and rectal areas who received Amifostine for radioprotection was conducted. Assessment of their premedication, their compliance to the pre/post hydration, reac-
tions noted and the extent of xerostomia, mucositis and esophagitis was evaluated.

Seventy-five percent of patients evaluated had head and neck cancer while the remainder had either lung or rectal cancer. Sixty-four percent were premedicated with ondansetron, ranitidine and cetirizine. Despite this, no patients were able to complete Amifostine therapy secondary to intolerable side effects of nausea, vomiting, hypotension, rash or fever. In addition, patients who received Amifostine experienced the same grade of xerostomia, mucositis and esophagitis as those who did not receive Amifostine therapy.

Amifostine has been available for use as a radioprotectant for many years. Unfortunately, many patients cannot tolerate it. Because of the improvement in long and short-term toxicities that may result from the administration of Amifostine, it is important that we continue to develop new ways to make it more tolerable for the patient.

2284
AN INNOVATIVE PROGRAM TO SUPPORT FAMILY CAREGIVERS OF BRAIN TUMOR PATIENTS. Harriet Patterson, MPH, and Mary Lovely, RN, PhD, National Brain Tumor Foundation, San Francisco, CA.

Family caregivers of brain tumor patients face a daunting challenge, dealing with the acute needs of a terminal cancer patient and the stress of caring for someone with impaired neurological status. Oncology nurses have an important role as providers of patient and family education that can positively impact families coping at home. Recent studies show that educational and skill-building interventions can have significant impact on caregiver and patient wellbeing. An innovative support program for family caregivers of brain tumor patients has been developed and implemented across the US to help meet this need.

1. Describe the need for caregiver training and education programs for brain tumor patients
2. Identify the seven modules of the caregiver program curriculum
3. State the essential challenges and benefits of implementing the program
4. Present outcomes

This family caregiver training program works on developing practical care skills and providing detailed information about brain tumors to family members. It includes an 8-hour workshop curriculum on topics such as Medical Overview of Brain Tumors, Symptom Management at Home, Understanding Cognitive Changes, How to Safely Move a Patient, and more. The program has been implemented at medical centers throughout the US. This session will describe the workshop format, curriculum, and challenges to implementation, equipping nurses to offer the free workshop at their institutions. The session will conclude with outcome data from the past 3 years and a discussion of future areas for research and intervention.

The program has been evaluated over the last 3 years using post-workshop participant evaluations. Evaluation measurements include increases in caregiver knowledge, changes to caregiving behavior and confidence levels, and the overall benefit of the workshop as perceived by participants. A larger retrospective outcome study is underway.

As more family caregivers become extensions of the health care team in the home, the importance of education and training for this group is critical. Oncology nurses can utilize this program free of charge to help build skills and teach families how to provide better care for their loved ones with brain tumors.

2288
THE NURSE COMPLEMENTARY AND ALTERNATIVE MEDICINE INSTRUMENT: STABILITY TESTING. M. Teresa Rojas-Cooley, RN, City of Hope National Medical Center, Duarte, CA; Dana N. Rutledge, RN, PhD, California State University, Fullerton Department of Nursing, Fullerton, CA; and Marcia Grant, RN, DNSc, FAAN, City of Hope National Medical Center, Duarte, CA.

Patients report high interest and/or use of CAM therapies, but for various reasons, hesitate discussing these treatments with healthcare providers. Registered Nurses, the largest and most trusted part of the healthcare team, are in the ideal situation to query patients about CAM. Unfortunately, due to lack of knowledge, nurses report great discomfort discussing CAM therapies with patients. Education, therefore, is needed to open CAM communication between nurses and patients. Before an educational curriculum can be implemented, a valid and reliable measure is needed to assess baseline educational needs of nurses; The Nurse Complementary and Alternative Medicine Knowledge & Attitude (Nr CAM K&A) Instrument was developed due to lack of such a measure. Face validity and internal consistency were demonstrated previously. This study reports reliability estimates of stability with specific survey items.

To determine re-test reliability estimates of The Nr CAM K & A Instrument in a southwestern US sample of multi-specialty RNs.

Psychometric theory.


Procedure: On data collection day one and two, a verbal description of the study, a written invitation to participate, a demographic data sheet, and the CAM K&A instrument was provided. Returned surveys were matched by the participants’ initials and coded. Data analysis- Specific survey items from Nr CAM K & A were tested for reliability (stability) using intraclass correlation coefficients (ICC).

A total of 18 nurses completed surveys on 2 consecutive days. Average participant was 43 years old, female, and Caucasian. Results were overall ICC score of .30 and individual item index ICC’s .45 to .71.

Previously, nurses were noted having poor knowledge about CAM, but highly interested in learning more. Results from this study indicate that when nurses “guess” on knowledge-type questions, stability of responses may be poor. Survey items that evaluate knowledge will have a “do not know” response added.

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2290
ORGANIZING A HEAD & NECK CANCER SCREENING DAY: THE ONCOLOGY NURSE’S ROLE. Janet McKiernan, RN, BSN, OCN®, and Jill Solan, RN, MSN, ANP, Memorial Sloan-Kettering Cancer Center, New York, NY.

More than 30,000 Americans will be diagnosed with head and neck (H&N) cancer in 2006 and approximately 7,000 will die of the disease. The 5 year disease-free survival has not significantly improved since the 1950’s and may be less than 50% depending on stage of disease. Cancer screenings have demonstrated improved mortality rates for a number of cancers. The H&N region can be readily examined making cancer screenings feasible to improve early detection thereby reducing mortality. Oncology nurses can play a significant role in organizing H&N cancer screening clinics.

This presentation will review the steps involved for an oncology nurse to plan and implement a H&N cancer screening day.

At this NCI-designated comprehensive cancer center, a free H&N cancer screening has been held annually for 8 years. Experienced
H&N oncology nurses coordinate the screening day within the H&N surgical practice team. Initially the date for the screening day is secured. Publicity for the event is coordinated with public affairs and graphics. Commitments for assistance with smoking cessation and nutritional counseling are prearranged as these services are available throughout the screening hours. Preparations also include obtaining registration screening forms, training the administrative support staff about the registration process and flow, and meeting with the surgical fellows to discuss the details of the H&N examination and documentation. Finally, the nurse tallies the screening data and sends a follow-up letter to all participants with an abnormal exam requiring further evaluation.

Over the past 8 years, 94 to 173 individuals have been screened each year within a 4 hour period. Abnormal examinations have ranged from 18 to 35% with findings including oral leukoplakia lesions, skin lesions, thyroid nodules, cervical lymphadenopathy and complaints of dysphagia and hoarseness with a recommendation for further evaluation. A supraglottic carcinoma was detected at one screening day with instructions provided for immediate medical attention.

This presentation will discuss the process involved to coordinate a free screening day and will also review the screening results. This process could be applied to other oncology screenings and may assist oncology nurses planning a community screening day.

2291
HEALTH BEHAVIOR PATTERNS AND DISPARITIES OF MAMMOGRAPHY USE IN THE MULTI ETHNIC COHORT. Quannetta Edwards, RN, FNP-C, WHCNP-C, PhD, FAANP, City of Hope Department of Clinical Cancer Genetics, Duarte, CA; Arthur Li, MS, and Malcom C. Pike, PhD, University of Southern California, Keck School of Medicine, Los Angeles, CA; Laurence N. Kolonel, MD, PhD, Cancer Etiology Program Cancer Research Center of Hawaii, University of Hawaii, Honolulu, HI; and Brian E. Henderson, MD, and Roberta McKean-Cowdin, PhD, University of Southern California, Keck School of Medicine, Los Angeles, CA.

According to 2003 data from the National Health Interview Survey (NHIS) of the National Center of Health Statistics, 71% of African American (AA) and 71% of White women surveyed reported receiving a mammogram within the previous 2 years, suggesting that Healthy People 2010 objectives for 70% of women age 40 years & older to receive at least a biannual mammogram have been achieved. No data however, are available on repeat mammography over time. For women 40 years & older, mammograms are recommended yearly by the American Cancer Society (ACS) & every 1-2 years by the American College of Radiology; & (c) assess if demographic, medical history, or body mass characteristics associated with poor prognosis.

AIMS: (a) Describe repeat mammography as reported by women enrolled in the Hawaii & Los Angeles California Multiethnic Cohort (MEC) & assess if ACS or NCI mammography recommendations were met; (b) Explore if racial/ethnic disparities exist in mammography; & (c) assess if demographic, medical history, or body mass index influences behavior.

A ‘Health Behavior’ model with social, demographic and cultural foci was used to guide the study.

DESIGN: Baseline & follow-up surveys of 81,722 women ages 45-75 with complete mammography history at enrollment of a prospective MEC; DATA ANALYSES: odds ratios and 95% confidence intervals (CI) were calculated using unconditional logistic regression.

RESULTS: 91% of women reported ‘ever’ having a mammogram at baseline; however only 37% reported an annual and 48% an annual or biannual mammogram during the follow-up period. Race/ethnicity was an important indicator of regular mammography use even after controlling for age, education, family history and estrogen use. Odds of repeat exams were lower for AA (ORadj = 0.76, 95% CI 0.72-0.79); Hispanic (ORadj=0.80, 95% CI 0.76-0.84), Native Hawaiian (ORadj=0.80, 95% CI 0.80-0.90) and Japanese (ORadj=0.93, 95% CI 0.89-0.97) women compared to Whites. While most women reported a prior mammogram, the percent of women who reported an annual or biannual mammogram was low and differed by race/ethnicity. Culturally sensitive patient education by nurses to improve women’s life-long mammography behaviors is warranted.

2293
FACILITATING MULTIDISCIPLINARY COLLABORATION IN AN OUTPATIENT INFUSION SETTING. Judith Karp, RNC, BSN, OCN®, Sinai Hospital, Alvin & Lois Lapidus Cancer Institute, Baltimore, MD; and Patricia Wilcox, APN, MSN, AOCN®, Sinai Hospital, Baltimore, MD.

The interaction between nurses and patients in outpatient settings can be brief, but many patient treatments now extend for several hours or more per visit due to regimens that are more complex and the needs of the aging oncology population. Because of these factors, multidisciplinary interaction cannot be overlooked in this patient setting.

Sinai Hospital in Baltimore, MD has a rapidly growing outpatient oncology population. In the past four years, it has grown from 400 to 1300 patient visits per month. The infusion area is associated with a six-member group of oncology physicians that treat all types of cancer and use all of the latest biological and chemotherapy agents.

The nurses in the infusion center decided that multidisciplinary rounds would provide a forum where select patients’ plan of care could be discussed. The case studies that the nurses selected for rounds were those the staff found most interesting or posed a management challenge. Nursing leadership supported this proposal and approved one hour each month where patients are not scheduled in the infusion center, to enable all staff to attend the meetings. Patients are identified one week prior to rounds by the infusion staff.

The Medical Director, CRNPs, APN, unit manager, infusion staff, oncology pharmacist, social worker, and the oncology office RNs participate in these rounds. Presentation of the patient includes past history, current treatment and social situation.

Two common themes have been identified. The first is the need to begin transition of the patient and family toward palliative care. The second theme identified is the need to provide support to previously unidentified patient needs.

The participants all agree that this sharing of information on patients and families has helped to better articulate patient needs, improve patient outcomes and facilitates and improves communication between all disciplines.

2295
EVALUATING A NEURO-ONCOLOGY INFORMATION HOTLINE AS A COMPLEMENT TO CLINICAL CARE. Jenette Spezeski, MPH, Mary Lovely, RN, PhD, and Harriet Patterson, MPH, National Brain Tumor Foundation, San Francisco, CA.

The plethora of information accompanying a cancer diagnosis can overwhelm patients and their caregivers, resulting in questions that arise between medical visits. A neuro-oncology information hotline is intended to bridge this gap by providing information on topics ranging from brain tumor types and treatments, caregiving issues, symptom management, and referrals to support-related resources.
The purpose of this initiative was to evaluate the usefulness of a neuro-oncology hotline to its callers. Further, the evaluation sought to gather information about who uses the service, why individuals call the hotline, and which needs were not being met.

Trained interviewees conducted a retrospective telephone survey with a sample of callers who had used the hotline over a six-week period. The questionnaire was pilot-tested and contained 19 multiple choice and 4 open-ended questions. Of the 107 individuals contacted, 75 (70%) completed the survey. Responses were summarized and open-ended questions were analyzed using qualitative research methods.

Callers were primarily female (79%) and Caucasian (85%). Nearly 65% of callers were between 46 and 65 years old, whereas only 4% of callers were 35 years or younger. Fifty-two percent were the friend or family of a patient, while 35% self-identified as a patient. Callers contacted the hotline seeking information, support, or because of circumstances such as a diagnosis or treatment options. Eighty-one percent of callers received educational materials, 37% received a consultation with a neuro-oncology nurse, and 34% of callers were referred to support-related resources. Callers expressed satisfaction with their experience and found the information to be quite helpful. Unmet needs included resources on long-term survivorship and the practical impact of a cancer diagnosis. Virtually all of callers said they would recommend the hotline to others needing information about brain tumors.

This survey highlights the important role of patient hotlines as a complement to oncology nursing. Neuro-oncology is a specialized field and quality information can be found through a hotline venue. Hotlines empower patients to seek quality information about their diagnosis. Referring patients to hotlines raises awareness about the helpful services available. Partnerships between nurses and patient groups will address unmet needs and reach underserved populations.

**2296**

**EXERCISE DURING ADJUVANT CANCER TREATMENT DECREASED NAUSEA AT THE END OF TREATMENT IN BREAST CANCER PATIENTS.** Jiyeon Lee, RN, MS, and Marylin Dodd, RN, PhD, FAAN, University of California San Francisco, San Francisco, CA.

Exercise has been suggested as an effective intervention for cancer related symptoms such as fatigue and sleep. However, only a few studies have been done that focused on the effect of exercise in nausea control, with inconclusive results.

The purpose of this study was to evaluate the effect of exercise in nausea control during and after adjuvant chemotherapy (CTx) ± Radiation therapy (RTx).

The theoretical framework of this study is the model for symptom management.

This secondary data analysis is based on randomized clinical trial that investigated the effect of exercise on fatigue of cancer patients. Subjects were female breast cancer patients with stage I to III (N=112). Most subjects received adriamycin and cyclophosphamide (n=98) ± RTx (n=59). Subjects completed baseline measurement (T1) between the completion of the first cycle and before the start of second cycle of CTx. Second measurement was done after completion of all cycles of CTx ± RTx (T2). The final measurement was completed after equivalent period of time between T1 and T2 (T3). Exercise status was measured by intensity of exercise, time per each session, and the number days per week. If a subject exercised somewhat hard in intensity, more than 21 minutes per session and more than three days per week, the subject was considered as an exerciser. Patients evaluated nausea severity on a 0-10 numeric rating scale.

Mann-Whitney U test was used to compare mean nausea severity between exercisers (n=45) and non-exercisers (n=52). There was significant difference in nausea severity between exerciser and non-exerciser at T2 (z=-2.183, p=.029). For subjects who were exercisers at T1, continuation of exercise during treatment phase (T1-T2) is emphasized, since discontinuing exercise resulted in more nausea after their treatment (T2). Starting exercise with adjuvant therapy (T1-T2) in non-exercisers at T1 is highly recommended as to achieve better control of nausea after the treatment (T2). Encouraging subjects to exercise during adjuvant therapy is a suggested intervention to control nausea after therapy.

**2298**

**UTILIZING A SCENIC CURTAIN TO DECREASE THE PATIENT’S ANXIETY AND ANGER DURING INITIAL CHEMOTHERAPY TREATMENT.** Kimberly Moeller, RN, BSN, OCN®, Summa Health System, Akron, OH; Sherry Murvine, RN, BSN, Hospice and Palliative Care of Visiting Nurse Service, Akron, OH; and Christopher Began, RN, BSN, Aultman Hospital, Canton, OH.

The diagnosis of cancer and fear of the unknown often produces physiological distress, such as increased levels of anxiety and anger. Anxiety can be a major factor in anticipatory nausea and vomiting, substantially interfering with the patient’s quality of life. Evidence based research has revealed distraction intervention has been effective in reducing the levels of anxiety and anger. Alleviating patient stress and anxiety is a significant clinical goal because anxiety is both: an important negative health outcome, and has a variety of detrimental psychological, physical, and behavioral effects that worsen other outcomes.

The purpose of this study was to explore the use of a tranquil ocean Serene View curtain as a distraction intervention to reduce anger and anxiety in patient’s receiving initial chemotherapy in the out-patient setting.

Dorothy Johnson’s conceptual framework guided this study. One goal is for the patient to obtain function at the optimal level. Johnson understood the client is stressed by either internal or external stimuli which disrupt this equilibrium. The goal of nursing is to return the system to balance and support the process by which it is obtained. The literature review also showed that Florence Nightingale believed nurses need to put patients in the best possible condition to allow health to be restored and prevention of cure and disease.

The method utilized was a quantitative experimental design. 29 participants were randomized into either the control or experimental group and received a two-pocket coded packet. Each packet contained a twenty question pre and post test survey along with a pre and post test visual analog scale.

Both groups revealed significant decreases in anxiety as evidenced by survey questions, VAS measures, blood pressures, and heart rates. These decreases could not solely be attributed by the scenic curtain. It is important to nursing that regardless of the intervention, initial chemotherapy produces anxiety.

**2301**

**GENDER DIFFERENCES IN QUALITY OF LIFE OF CAREGIVERS OF PATIENTS WITH ADVANCED CANCER.** Patricia Carter, PhD, RN, CNS, Sabrina Q. Mikan, MSN, and Cherie Simpson, MSN, University of Texas at Austin, Austin, TX.

Nearly one out of every four households (23% or 22.4 million households) is involved in caregiving to persons aged 50 and older with a chronic disabling condition. This number is estimated to increase to 39 million by the year 2007. The cumulative impact of informal caregiving is has severe negative effects on caregiver sleep.
quality, depression and quality of life. Male and female caregivers respond differently to the stressors of caregiving and thus may report different levels of sleep, depression, and quality of life.

The purpose of this study was to explore the similarities and differences between male and female caregivers on the variables of sleep quality, depression, and quality of life.

The stress and coping framework was used to guide this study.

This 4-month sleep intervention study enrolled adult family caregivers of persons with advanced stage cancer. Variables of interest are sleep quality, depression, quality of life. Analysis revealed significant differences between genders on the variable of quality of life. This paper will present the further exploration of these differences.

Sixty-three caregivers have been enrolled in the study to date (Males n=22, Females n=41).

Preliminary findings reveal that there is a significant difference between male and female quality of life while caregiving at both baseline (week 1) and post-intervention (week 3) quality of life scores; p< 0.05. In female caregivers quality of life was significantly correlated with caregiver age, current health status, relationship quality, depression, and sleep quality. Depression was the only variable significantly correlated with quality of life in male caregivers.

Conclusions: Male and female caregivers respond differently to the stressors of providing care to a family member with advanced stage cancer. These findings suggest there is a relationship between poor quality of life related to current health illnesses of the female caregivers. Male caregivers experience depression, however there were no other variables identified as strong predictors for decreased quality of life, although this may be due to sample size. Further research in women’s health and informal caregiver stress is necessary in order to create interventions for women to improve quality of life while caregiving.

2302
WHY WAIT? THE DEVELOPMENT OF AN APN-LED, SAME-DAY, RAPID DIAGNOSTIC BREAST CLINIC. Bridgette Lord, RN, MN, ACNP, Princess Margaret Hospital, Toronto, Canada.

In 2006, an estimated 22,200 Canadian women were diagnosed with breast cancer. Considerable variation exists for patients from the time a breast abnormality is detected to the time of diagnosis. Many patients wait several weeks to receive a diagnosis. This delay in diagnosis leads to prolonged patient anxiety and a delay in treatment.

At a large Canadian Cancer Centre, both patients and health care providers recognized the need to improve the diagnostic process for patients with breast abnormalities. In consultation with a multi-disciplinary team, an Advanced Practice Nurse (APN)-led, same-day, rapid diagnostic breast clinic was created. The goals of this clinic were two-fold: to expedite the diagnostic process for patients with suspicious breast abnormalities, and to provide a caring and supportive environment for patients throughout the diagnostic process.

The APN plays a pivotal role in streamlining the diagnostic process for patients allowing for a one-stop, same-day, rapid diagnostic breast clinic. The clinic operates twice weekly for patients with suspicious physical, mammographic or sonographic breast findings. The APN triages new patients; conducts health histories and physical examinations; and arranges further imaging and core biopsies, if required. For those patients undergoing biopsy, the APN and surgeon meet with the patient to discuss the pathology results in the afternoon. On-going psychosocial support and education is provided throughout the diagnostic process.

To date, the preliminary data shows that the current time to diagnosis has been decreased from several weeks to several hours, with 89% of patients receiving a same-day diagnosis in the rapid diagnostic clinic. Eighty percent of patients seen in the rapid clinic had biopsies and 85% of those patients required surgery. Patient satisfaction with the same-day, rapid diagnostic clinic is currently being evaluated. Up to date results and statistics will be provided in the poster.

Oncology nurses can play an important and unique role in developing and leading new clinics to ameliorate the diagnostic process for patients and improve overall patient care. Other departments and/or hospitals may adopt this clinic model to provide superior patient care and a more timely diagnosis for patients.

2303
EVIDENCE BASED, ONCOLOGY FOCUSED ORIENTATION EDUCATION FOR ALL LEVELS OF EXPERIENCE. Martha Kershaw, RN, BSN, and Christina McMahon, RN, BSN, Roswell Park Cancer Institute, Buffalo, NY.

As a comprehensive cancer center, the challenge to respond to the growing need for nursing recruitment and retention, implementation of shared governance and application for magnet status have driven the change in the orientation education for nursing staff at Roswell Park Cancer Institute. Recommendations from staff program evaluations, input from incumbent staff through Education councils, review of the literature, including the ONS Education Blueprint, and benchmarking with like institutions determined the structure recommended.

The goal was to develop an evidence-based, oncology focused orientation that met the needs of nursing staff coming into our comprehensive cancer center with all levels of experience.

To provide classes meaningful to all levels of experience, the decision was made to have new nursing staff attend classes based on their past experience. 3 levels of nursing staff were identified, Graduate nurse, Experienced nurse and Experienced Oncology Nurse. A competency self assessment completed by the new staff member on their first day of employment along with a skill demonstration drives the classroom orientation they are required to attend.

Evidence and benchmarking helped shape the classroom content included and the presentation methods used. Basic pieces recommended by the ANCC for orientation in a magnet institution were incorporated with oncology information included by other like institutions. Information previously provided in SLM format was recommended as lecture content. Lectures incorporating power-point presentations with case studies to provide relatable reinforcement of the content presented. Oncology specific classes were recommended to build on the information in the Basic Oncology Nursing Orientation.

A tool was developed that allows new staff to evaluate classroom orientation at the end of each class session. Information will be shared with Education Councils for on-going discussion on how to shape future sessions.

By providing an orientation program that evaluates the nursing staff’s previous experience and then provides an evidenced-based classroom orientation built around their oncology specific educational needs, the information is relevant to the learner and thus a valuable learning experience.

2304
A PILOT STUDY OF DECISION MAKING PREFERENCES IN PERSONS WITH ADVANCED CANCER. Anne Hughes, RN, MN, AOCN®, Laguna Honda Hospital/SF Department of Public Health, San Francisco, CA.

While recent literature suggests that patients’ abilities to participate freely in medical decisions when chronically or seriously ill, may not be completely autonomous given the gravity of what is at
stake and the patients’ knowledge base, nevertheless in the US, patient participation is a key aspect of cancer care, and is a cornerstone of western bioethics culture. The ability of socio-economically disadvantaged persons living with advanced cancer to participate in medical decision making is not well described in the literature.

The purpose of this pilot study is to describe the decision making preferences of persons with advanced cancer who are poor and living in an urban area.

The theoretical framework for this pilot is patient decision making theory who maintains that there are a range of preferences patients’ may demonstrate when faced with a medical decision.

This analysis is part of a larger study, using mixed methods to explore the meaning of dignity. Patients were recruited from providers caring for the urban poor. The Control Preference Scale was administered to the participants by the researcher along with other study instruments. Data analysis included computing the patient’s decision making preference based on the paired sort of five decision making styles, and by asking for the one decision making style which best reflects the patient’s usual style of decision making.

Sixteen patients with advanced cancer participated in this pilot, most had stage III or stage IV solid tumors (lung, breast, colorectal, etc.). Three of the 16 patients also had AIDS. The sample included 7 men and 9 women, ranged in age from 38-69 years, and half of the sample were persons of color (6 African Americans and 2 Hispanic/Latinos). Patients displayed a range of decision making preferences most wanting shared decision making with their physician. As several patients commented during the administration of this survey, “I’m not a doctor.” This pilot reinforces the need to assess patients’ decision making preference, regardless of economic resources when coping with cancer, and leaves unanswered how decision making preference may change over time as the illness progresses.

2306 ADVANCE DIRECTIVES: DO WE PRACTICE WHAT WE TEACH? Barbara Biedrzycki, RN, MSN, AOCN®, CRNP, Johns Hopkins, Baltimore, MD.

Oncology nurses are the professionals the public trusts the most. With a sensitive issue, such as advance directives, the public may place value on their oncology nurses’ personal use of, access to resources for and knowledge about advance directives. Oncology nurses’ comfort with advance directives may directly impact the public’s perception and use of advance directives.

The aim of this pilot study was to learn more about oncology nurses’ use and knowledge of advance directives. Participation in decision making about treatment in advanced disease, that is included in many advanced directives, was the second priority for the total ONS membership, based on ONS’ 2004 survey. Indirectly, this research relates to facilitating the family system to make decisions while managing the demands of cancer (ONS Priority Topic 2.1, ONS 2005-2009 Research Agenda).

The Health Belief Model provides the theoretical framework which guides this pilot study. The value that one places on the risks and benefits of the health outcome, as well as the completion of an advance directive, determines if action is taken.

Through an educational project, a poster presentation at the 31st Annual Congress, this pilot study captured data directly onto the poster. Through the slash marks of conference participants, data was collected on the use of advance directives. Also, participants were asked if they thought that access to resources and/or knowledge impacted their personal use of advance directives.

The data supports that oncology nurses are willing to share that the oncology nurses personal decision regarding having an advance directive. While the main purpose of the previous poster presentation was to increase oncology nurses awareness of advance directives, valuable pilot data was gathered. This very preliminary data provides the impetus for conducting a more rigorous research study exploring the oncology nurses use of advance directives.

2308 EVALUATING ALTERNATE APPROACHES FOR DELIVERING NON-PHARMACOLOGICAL INTERVENTIONS FOR DYSPNEA IN PATIENTS WITH LUNG CANCER. Patsy Yates, PhD, RN, Queensland University of Technology, Kelvin Grove, Australia; Elizabeth White, MSc, Aged Care Accreditation, Brisbane, Australia; and Helen Skerman, MSoScSci, Queensland University of Technology, Kelvin Grove, Australia.

Despite the potential benefits of non-pharmacological strategies for managing dyspnea in lung cancer, such interventions have proved difficult to implement in routine clinical practice because they require specialised training and substantial time.

This study aimed to undertake preliminary evaluation of alternate approaches to delivering an intervention involving Breathing Retraining and Targeted Psychosocial Support to improve the nurse sensitive patient outcome - dyspnea.

Corner’s Integrated model of dyspnea

Two pilot studies using experimental designs were undertaken. Trial one involved a quasi-experimental design with 30 patients assigned to intervention or comparison groups. The intervention group received the intervention in face-to-face sessions administered weekly for 4 weeks at hospital or in the home. Trial two involved a randomised controlled design with 57 patients. The intervention was also administered on a weekly basis for four weeks, however the first session only was delivered face-to-face and follow up sessions were delivered by phone, supported by printed information. In both trials, measures of breathlessness, physical and psychological symptoms, and functional status were undertaken at Baseline, 4 weeks and 8 weeks.

Analysis of pre-post intervention assessments in trial 1 revealed a statistically significant intervention effect for breathlessness at best ratings only ($F_{2,44}=5.30, p=.009$). No significant differences were found between groups in breathlessness or symptom distress ratings in trial 2, although the intervention group reported non-pharmacological strategies to be significantly more useful over time than the control group ($p<.001$).

These pilot studies were developed to examine the effectiveness of different delivery formats and shorter time frames or doses of non-pharmacological interventions for dyspnea than those reported in previous studies. Findings provide only minimal evidence of improvement resulting from these intervention strategies. Further sufficiently powered studies are required to investigate ways to optimise the delivery of non-pharmacological interventions for lung cancer and reduce the research-practice gap in this field.

2310 QUALITY OF LIFE WITH THE BREAST CANCER PATIENTS AND THEIR SPOUSES ACROSS TREATMENT PHASES IN REPUBLIC OF KOREA. Insook Lee, Seoul University National Hospital, Seoul Korea; and Woonghee Lee and Chungmin Choi, Yonsei University College of Nursing, Seoul, Korea.

Among Korean women, breast cancer is the most common cancer. Furthermore, the incidence continues to rise with the peak in 40 years olds. When a woman is diagnosed with breast cancer in Korea, there often is a crisis in the family. Cancer does indeed invade the entire family, and that family members, especially, spouses, are distressed.
Especially, Quality of life is important to breast cancer patient and their spouses. Nevertheless, little research has been conducted on the Quality of Life of both breast cancer patients and their spouses.

The aims of this study were to assess similarities and differences between patients with breast cancer and their spouses across the treatment phases and to investigate the relationships between the patients’ and spouses’ quality of life.

The convenience sample consisted of 45 women and their husbands in operation phase, 13 women and their husbands in adjuvant treatment phase, and 31 women and their husbands in recovery phase. Participants completed questionnaires which contained a demographic questionnaire, and Quality of life questionnaire (Ferrell’s QOL-BC and QOL-Family version). Descriptive statistics, t-test, and ANOVA tests were used to analyze the data. Differences were found across phases of treatment on subscales and total QOL scores, including those representing perceived physical well being, psychological well being, social well being, spiritual well being, and total QOL.

Results: Psychological wellbeing score of breast cancer patients and their spouses across the treatment phases was significant differences across the treatment phases (F=3.83, p=.025). However, no significant differences were found across the treatment phases in husbands. There was a significant relationship between total QOL and subscales of breast cancer patients and their spouses across the treatment phases.

Conclusions: Health care professionals need to recognize similarities and differences between women and their husbands to better meet the needs of patients and their husbands with a breast cancer diagnosis and treatment. Future studies need to consider nursing care intervention for breast patients and their spouses across the treatment phases.

2313
MANAGING THE RISK OF VENOUS THROMBOEMBOLISM IN CANCER PATIENTS THROUGH MULTI-DISCIPLINARY COLLABORATION. Victoria Hawkins, DRPH, RN, Donna L. Gerber, PhD, AOCN®, BCLS, CNS, RN, Jane M. Falk, MS, BSN, Janet K. Taubert, MSN, BSN, ACLS, BCLS, CNS, OCN®, RN, Monique E. Taylor, MSN, MBA, OCN®, RN, and Dianne L. Stephens, MSN, BSN, ACLS, OCN®, RN, M.D. Anderson Cancer Center, Houston, TX.

Mortality within six months of initial hospitalization increases three-fold for cancer patients with venous thromboembolism (VTE) when compared to patients with cancer only. VTE is preventable and treatable in many cases. However in 2005, only seven percent of patients who died from thrombotic complications in the U.S. were ever diagnosed or treated for VTE, according to a new study. Another recent trial has demonstrated that a systematic process of VTE risk assessment with physician notification results in improved prophylaxis and reduced incidence of VTE.

The purpose of this project is to establish a systematic process of VTE risk assessment with physician notification that is safe, effective, and easy to use.

Through an extensive literature review, VTE risk factors were identified and stratified based upon strength of the evidence. The list of factors was narrowed to those for which there was consensus, and the RN VTE Risk Assessment Tool was created. Concurrently, a multidisciplinary healthcare team developed an online physician order set for VTE prevention based on national guidelines. The RN tool and physician orders were integrated into one online document, thus creating a record for nurse to physician collaboration and reducing the need for redundant documentation.

A pilot project will be conducted for one month on a medical oncology unit and a surgical oncology unit. The data to be collected at baseline and during the pilot include: (1) number and percent of new patients who received the risk assessment with physician notification; (2) types of VTE risk factors found in these patient populations; (3) physician practice patterns related to thromboprophylaxis. In addition, a survey will be conducted among participating multidisciplinary staff to assess the accessibility, convenience, and utility of the new process.

It is hoped that the process can be adapted easily to other clinical settings here and at other oncology health care centers. Educating nurses regarding the prevalence of VTE in the oncology population and enabling nurses to conduct VTE risk assessment with physician notification are powerful tools in the prevention of this deadly complication.

2315
ASSESSING MEDICAL ONCOLOGY OFFICE PRACTICES FOR QUALITY IMPROVEMENT: A FOX CHASE CANCER CENTER PARTNERS INITIATIVE. Margaret O’Grady, MSN, RN, OCN®, Elaine Sein, RN, BSN, OCN®, Patricia Keeley, RN, MSN, APRN-BC, OCN®, Bonnie Miller, RN, BSN, OCN®, and Paul Engstrom, MD, FACP, Fox Chase Cancer Center, Rockledge, PA; and Steven Cohen, MD, Fox Chase Cancer Center, Philadelphia, PA.

As “Pay for Performance” becomes a reality, medical oncology practices will need clinical nursing support to help quality monitor and audit for compliance. Fox Chase Cancer Center Partners (FCCCP) is a unique community hospital/academic partnership that jointly monitors quality improvement activities in community private practice medical oncology offices.

The FCCCP Clinical Operations Team consisting of Medical Oncologists and Oncology Certified Nurses conduct quality audits in 16 medical oncology offices for six years utilizing National Comprehensive Cancer Network (NCCN) derived indicators. The audit process allows for benchmarking against quality indicators/guidelines and provides a roadmap for quality improvement initiatives in the oncology clinical office setting.

Reviewing 16 medical oncology practices, concordance with NCCN guidelines is rated for each of 20 charts selected from individual office practices. The FCCCP team and the Partner Medical Oncologists have built site and stage specific indicators for yearly review looking at breast, colon, lung, prostate, esophageal and gastric cancers. Measurement is based on a three-point scale: 1 meets criterion, 2 does not, or 3 is not applicable. This is based on a list of indicators and data dictionary developed yearly by FCCCP Operations staff.

A report is generated for the medical oncology practice on areas such as documentation, screening recommendations, new drug utilization and research trends in a particular disease site. Statistics are generated looking at indicators met, number of new cases seen per year, number of disease site cases based on tumor registry information, and clinical trial accrual total and site specific. Education and documentation tools are provided to physicians and oncology office nursing staff to maintain quality and streamline processes. Valuable education and documentation tools are provided to ambulatory care and oncology nurses to maintain quality and streamline processes.

Benchmarking against NCCN guidelines and each other, FCCCP private practice medical oncologists have enhanced documentation development and research study information exchange has occurred to better capture information and support the provision of quality care. Utilizing the expertise of oncology nurses and the NCCN guidelines, this quality review process is a model for use in any oncology practice.
2316
NURSING ROLE IN A PILOT STUDY ON THE ADMINISTRATION OF EXERCISE IN ACUTE LEUKEMIA PATIENTS DURING INDUCTION CHEMOTHERAPY. Reynaldo Garcia, RN, BSN, OCN®. University of North Carolina Lineberger Cancer Center, Chapel Hill, NC; Crista Creddie, RN, BSN, OCN®. University of North Carolina Hospitals, Chapel Hill, NC; Claudio Battaglini, PhD. University of North Carolina at Chapel Hill, Chapel Hill, NC; Inpatient Adult Oncology Nursing Staff RN, University of North Carolina Hospitals, Chapel Hill, NC.

Induction treatment for an acute leukemia usually requires an inpatient hospitalization for 3 – 4 weeks. Besides chemotherapy, patient will receive blood product support, antibiotics and intravenous hydration. Patients are usually encouraged to stay active during this hospitalization, however, chemotherapy side-effects, diagnostic tests and fluid traffic management hinders this situation.

A pilot study conducted examined the feasibility of administering an exercise regimen during the induction and the 2-weeks after induction of the subjects. Secondly, the study examined the effects of exercise on depression and fatigue symptoms utilizing the Revised Piper Fatigue Scale and Depression questionnaire (CES-D).

An article from Sports Medicine Vol. 10 showed that exercise can be considered as a complimentary therapy in the management of chemotherapy related symptoms.

The study accrued 6 male and 3 female subjects (target of 10) with age ranging from 18 – 60. Under the supervision of an exercise physiologist, subjects underwent an initial battery of fitness and psychological assessments done within the first 3 days of induction followed by an exercise intervention 3 – 4 times per week and reassessment of the fitness and psychological parameters during specified times and at the end of the study (day before or the first day of consolidation therapy). It was administered for approximately 6 weeks (average of 4 weeks as an in-patient supervised individualized exercise prescription and 2 weeks as follow up at home through pre-prescribed self-administered exercise prescription) and was modified weekly depending on subject’s tolerance. This was divided into two daily sessions.

A system has been utilized to inform everyone involved in the patient care about subject’s participation in the study. Various nursing interventions were implemented and good communication between the nursing staff and the exercise physiologist was necessary to plan the subject’s daily activities. Patients reported a decrease in their overall fatigue of 62.5% using the Revised Piper Fatigue scale and a 35.3% decrease in depression symptoms by using the CES-D assessment.

In summary, nurses play a pivotal role in the successful execution of this pilot study and there is evidence to support the positive effects on depression and fatigue.

2317
ETHICS IN NURSING CARE, ADDRESSING THE ISSUES FROM THE BEDSIDE. Anne Delengowski, RN, MSN, AOCN®, Mia Burgis, BSN, and Christine Muldoon, BSN, Thomas Jefferson University Hospital, Philadelphia, PA.

Ethics in clinical care has been an ongoing challenge for staff nurses. With the increase in technology and life-sustaining therapy, these challenges have become more pronounced. Even more challenging has been the ability to educate and support the nurses at the bedside when ethical issues arise.

To meet this challenge, a working group was established consisting of a staff nurse representative from each nursing unit in a major urban hospital. The nurses were challenge to become “nurse champions” for ethics on their respective units. The initial goals of the group were to educate the staff on the application of the ANA Code of Ethics and principles of ethics. The intent was that these members would bring the information back to the bedside by the use of bi-directional communication presenting.

The group, established in October 2004, has met monthly. The initial goals were achieved by discussion and lectures by an interdisciplinary team including nurses and the chairman of the hospital ethics committee. Once the initial goals were accomplished, more sensitive issues were addressed, such as futility, truth telling, communicating bad news and research on nursing ethical dilemmas. In the past year, the group has matured with the staff now presenting ethical case studies and leading discussion on the ethical principles. The group intends on sponsoring a continuing education program in the fall, with members. The group assesses accomplishment of the goals from the previous year and topics for the upcoming year completes a yearly needs assessment.

Ethical issues face nurses, especially in cancer care, on a daily basis. Lack of education and support compound the stress imposed by these issues. The ethic’s nurse champions have found much common ground across life spans and specialties in reference to dealing with these stresses. Shared experiences and education have made an impact on their ability to deal with these challenges. With their experience with many ethical situations, the Oncology CNS, who leads the group, and oncology nurse champion, emerged as leaders and mentors of the group. This session will describe the planning, processes and development of the group.

2318
BLOOD TRANSFUSION OR NOT: A LITERATURE REVIEW OF BLOOD-LESS INTERVENTIONS TO TREAT CANCER RELATED ANEMIA. June Eilers, PhD, RN, BC, CS, Nebraska Medical Center, Omaha, NE; and Luisa Rounds, BSN, RN, University of Nebraska Medical Center College of Nursing, Omaha, NE.

Blood transfusions have been employed since 1492. In cancer they have become standard treatment for anemia secondary to cytotoxic therapy, blood loss, and bleeding disorders. Rising blood costs, blood safety concerns, health beliefs, and continuing blood shortages encourages the healthcare community to address blood conservation and restricted use of blood products. The life saving potential of blood transfusions must be weighed against these factors. In addition, legal and ethical considerations complicate their use as standard treatment for Jehovah’s Witnesses. The use of evidence based blood conservation practices and the potential of transfusion free care to correct anemia will allow the oncology nurse to support high quality, cost effective, safe, culturally sensitive care for the treatment of suppressed blood counts secondary to cancer and cancer treatment.

The purposes of this integrated literature review were to identify blood conservation and bloodless interventions to normalize hemoglobin for oncology patients and propose evidence based protocol for blood conservation in the treatment of cancer related anemia.

Data from more than 100 articles were compiled in an evidence based table to articulate the bloodless intervention, author/year, sample, limitations, findings, and level of evidence for each citation. The common interventions identified were cell salvage, aprotinin, colloids, growth factors, tranexamic acid, and overlay autogenous tissue (OAT) patch. The interventions identify the nursing and medical staff expertise in transfusion-free medicine, careful planning, intensive teamwork, patient-specific customization, and integrated use of multimodal blood conservation strategies, including bloodless bone marrow transplantation.

The bloodless interventions were descriptively outlined to evaluate based on measures of effectiveness, cost, safety, and quality of life.
related to blood transfusions. The review allows the nurse to evaluate the interventions for patient centered treatment.

Over five hundred years since the first blood transfusion, evidence supports the use of blood conservation and bloodless interventions. Valuable lessons and intriguing questions challenge the healthcare community about the necessity of routine blood transfusions and their transfusion trigger threshold. This leads to a discussion of a proposed evidence based protocol. Through the integration of this evidence-based literature nurses can evaluate, support, teach, and advocate for blood conservation techniques to treat cancer related complications.

2319
CASE MANAGEMENT OF THE NEWLY DIAGNOSED LEUKEMIA PATIENT. Kathy Rogala-Scherer, RN, and Michele Durusky, RN, BSN, Roswell Park Cancer Institute, Buffalo, NY.

For the best patient outcomes, most cost effective management of patient care and utilization of resources, the Case Management Department at the Roswell Park Caner Institute developed and implemented a paradigm of activities that occur each week the patient remains in patient during their induction chemotherapy treatment. The purpose of our abstract is to present the unique challenges and solutions for:

Communication with the patient’s insurance payer

Working with the patient and the patient’s family/support system on a realistic and safe discharge plan.

Obtaining vital information needed to plan for optimal post hospital care.

We have been able to demonstrate that education to the insurance payers about Acute Leukemia and its sub categories, the variety of treatment options available and the expected length of stay has decreased the denial of reimbursement of inpatient stay days from the insurance payers. We have also demonstrated that with Case Management intervention on weeks 2-3, initiating the discussion of discharge planning, RPCI in conjunction with patients/families are able to plan for a more realistic, timely and safe discharge plan. Lastly, because the Nurse Case Manager completes a comprehensive insurance check of the patient’s insurance benefits, we are able to maximize the benefits that are available to the patient.

The RPCI Case Management Department evaluates the success of our program using the following criteria:

- All inpatient hospital days are reimbursed by the insurance payer
- The patient is discharged to the next level of care that is safe and most beneficial for maximal recovery.
- The Nurse Case Manager and the patient/family are aware of the coverage and co-pays. Informed choices are made where coverage may be lacking. Alternate sources of coverage are applied for.

In conclusion, we believe this process meets the needs for best practice and outcomes for insurance payers, resource utilization and most importantly, the needs of the newly diagnosed leukemia patient.

2321
NURSING EDUCATION AND VENOUS THROMBOEMBOLISM (VTE): VTE—IT’S NOT JUST FOR SURGICAL PATIENTS ANYMORE! Karin Swiencki, RN, MSN, AOCN®, and Joan Kaiser, RN, MA, AOCN®, New York-Presbyterian/Columbia, New York, NY.

Venous Thromboembolism (VTE) is a significant problem nationally; approximately 600,000 Americans suffer from VTE annually, and up to 200,000 will die. The focus of VTE has been on the risk for surgical patients; however, multiple risk factors exist that put the majority of hospitalized patients at risk. Although VTE risk can be decreased by up to two-thirds by the use of prophylaxis, many patients never receive prophylaxis. The Institution started a Pilot Project to decrease the rate of hospital-acquired Deep Vein Thrombosis (DVT) on the Oncology Unit, it was evident that an educational program should be developed for the Oncology Nursing Staff regarding the problem of VTE in Oncology patients. Because Registered Nurses play a key role in patient education regarding medications and practices to maintain patient health and safety, patient education was an important focus.

Oncology Nurses must be aware that the presence of a malignancy is a major risk factor for the development of VTE and of the morbidity and mortality associated with VTE. The primary purpose of the VTE Nursing Education Program was to increase RN awareness of the problem of VTE in Oncology Patients, and awareness of nursing implications. The program provides an overview of the problem of VTE; risk assessment and appropriate prophylaxis; and nursing implications regarding VTE, with a focus on patient education.

A 45-minute Power Point presentation was provided to 100% of the Registered Nurses on the Medical Oncology Unit. An educational poster with key points from the presentation was displayed on the unit. The program was presented at Nursing Grand Rounds. The VTE program is provided to all new hires on the Medical Oncology Unit.

Because documentation in the medical record reflects care rendered, the Patient Care Director audits the charts for compliance with documentation of patient education regarding VTE and VTE prophylaxis according to Institutional guidelines. If there is a decrease in compliance with education, RN Staff is provided with a refresher inservice.

VTE is a significant problem for the Oncology Patient. The Oncology Registered Nurse who is educated about VTE can have a major impact on patient safety. VTE education should be a component of Nursing Orientation on all Oncology Units.

2323
“BRIDGE TO ONCOLOGY”: AN INNOVATIVE PROGRAM DESIGNED TO BRIDGE THE GAP FOR NEW GRADUATES AND ONCOLOGY NAIVE NURSES PRACTICING IN AN AMBULATORY CHEMOTHERAPY TREATMENT SETTING. Altagracia Mota, RN, MSN, OCN®; Stacie Corcoran, RN, MSN, AOCNS, and Janice Reid, RN, MA, OCN®, Memo r Sloan-Kettering Cancer Center, New York, NY.

Historically the need for highly skilled, critically thinking nurses in ambulatory care has precluded hiring new graduates or oncology naive nurses into the ambulatory chemotherapy treatment setting. In the face of a nursing shortage, new recruitment and retention strategies were needed at this NCI-designated cancer center.

Through collaboration with nursing leadership, nurse educators and clinical nurse specialists, the “Bridge to Oncology” orientation program was developed to enable oncology naive nurses to practice safely and competently in this setting. This presentation will describe program development and objectives.

An orientation pathway was developed with clearly stated objectives which guided instruction and skill development over a sixteen week period. Content progressed from a basic foundation to more complex concepts in oncology and chemotherapy administration. Teaching methods included clinical experiences in developing intravenous skills, patient assessment, symptom management, patient education, and chemotherapy administration. Online programs, readings, evidence-based lectures by expert nurses and off-unit observational experiences enabled the individual to gain a deeper understanding of oncology and the care continuum.

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Characteristics of these nurses and the challenges faced when transitioning to a new environment, led us to examine theories of marginalization, reality shock and adult learning. To further promote a successful transition and to closely monitor progress, weekly individual meetings were scheduled with orientees, their preceptor, nurse educator, nurse leader and clinical nurse specialist. Regularly scheduled meetings with the Director of Nursing Education also served as a forum for open discussion and peer support.

A tool was developed for orientees to evaluate the program at sixteen weeks, six months and one year. Results will determine the need for program modification and identify orientees’ short and long-term retention status.

As more orientee cohorts complete the “Bridge to Oncology” orientation program, assessment of several key factors such as level of competency, autonomy, confidence and professional satisfaction will help to determine the program’s merit and design. This program may have additional implications for other outpatient settings and has the potential to enhance recruitment and retention efforts.

2330
GENETIC VARIANTS & OSTEOPOROSIS IN POSTMENOPAUSAL WOMEN WITH EARLY STAGE BREAST CANCER. Patricia Kelly, RN, MS, AOCN®, Texas Health Resources, Dallas, TX.

Bone health and risk for osteoporosis are significant survivorship issues for postmenopausal women with breast cancer. Breast cancer treatments specifically aromatase inhibitor (A.I.) medications accelerate bone loss by reducing circulating levels of estrogen. Aromatase inhibitor induced hypoestrogenemia increases the potential for osteoporosis in a postmenopausal population already at risk based upon age. Women with breast cancer may be at increased risk for osteoporosis based upon their diagnosis alone, a phenomenon that may be related to genetic factors common to both diseases. The vitamin D receptor (VDR) and the estrogen receptor alpha (Erα) genes are well-studied genes associated with bone growth in the general population; however, these genes have not been studied in the breast cancer population. Bone mineral density (BMD) is held to be the gold standard for evaluating osteoporosis risk. In general population studies, BMD variations have been shown to be associated with polymorphisms in the VDR and Erα genes.

The purpose of this pilot study is to identify genetic factors and associated modifiers that relate to bone mineral density (BMD) in postmenopausal women with a diagnosis of early stage breast cancer (ONS Talking Points, Late Treatment Effects and Survivorship). Aims:(1) Measure BMD and identify associated modifiers in the postmenopausal breast cancer population.(2) Describe polymorphisms for the estrogen receptor gene, Erα, and the vitamin D receptor gene, VDR, in the postmenopausal breast cancer population.(3) Determine whether there are differences in BMD and associated modifiers over 3 years among study subsets.

Genomics is the conceptual framework, gene-gene and gene-environment interactions and the relationship of genes to health and disease.

This longitudinal comparative descriptive study will involve three groups (N=45) of postmenopausal women. At study enrollment, women will have genotyping for polymorphisms in the VDR and Erα genes. Participants will have a BMD at baseline and yearly for two years. Descriptive statistics and repeated measures of variance will be used for data analysis.

Genetic pathways may help explain osteoporosis variability in postmenopausal women with early stage breast cancer. Baseline evidence is needed to establish osteoporosis screening, prevention, and treatment guidelines in this population.

2333
ESTABLISHING A CENTRALIZED EDUCATION SERVICE FOR CLINICAL RESEARCH PERSONNEL. Regina Cunningham, PhD, RN, AOCN®, Deena Centofanti, MSN, RN, AOCN®, Diana Vamos, PharmD, Sunita Chaudhary, PhD, and Kristen Fessele, MSN, RN, AOCN®, Cancer Institute of New Jersey, New Brunswick, NJ.

The conduct of quality clinical cancer research requires highly competent clinical research nurses (CRNs) who are knowledgeable about research methods, regulatory and compliance issues, biostatistics, and clinical trials management. Historically, education of CRNs has often been limited to “on-the-job” experiences. The increased complexity of trial design, exponential increase in demands relative to regulatory issues, advances in informatics, and the need for patient protection, make a compelling case for a more formal and systematic approach to education and skill maintenance.

The overall purpose of the Centralized Education Services (CES) is to enhance the quality of cancer research through education. This service designs, develops, and implements educational programs to meet the initial and ongoing learning needs of CRNs, to supply regulatory and compliance updates, and to provide protocol-specific information.

CES staff includes professionals with diverse backgrounds in clinical research, research pharmacy, and regulatory affairs; these individuals are actively engaged in research in their daily work. CES staff develops curricula and provide education designed to facilitate development and maintenance of knowledge and skills that enable delivery of high quality services to clinical trials participants. Program content reflects Good Clinical Practice quality standards for designing, conducting, recording, and reporting trials that involve participation of human subjects. Content is also derived from the Code of Federal Regulations, expert research faculty experience, and relevant literature. Both basic and advanced programs are offered using innovative methods to deliver content.

Programs are evaluated using a variety of methods. Outcomes include the number of programs offered, the number of CRNs attending programs, scores on standard continuing education evaluations, content evaluations (pre- and post-tests), and demonstrated research-specific competencies. Members of the CES are collaborating with educational methods experts to develop and test innovative delivery strategies based on principles of adult learning and complexity theory to determine their effect on changing practice.

Effective clinical research relies on highly knowledgeable and competent CRNs. The CES provides ongoing education based on evolving needs and changing trends in the research environment. This program has been well received by investigators and CRNs and has served to improve the overall efficiency of the clinical research enterprise.

2334
ARGININE DEPRIVATION THERAPY (ADI-PEG 20) AND THE INCIDENCE OF FATIGUE IN ADVANCED HCC PATIENTS: A CHALLENGE FOR NURSES. Marianna Connola, RN, Margherita Foggia, Laura Galeani, Jane Bryce, Marzia Falanga, Mauro Piccirillo, MD, and Francesco Izzo, MD, NCI–Naples, Naples, Italy.

Pegylated arginine deiminase (ADI-PEG 20) is a novel anti-cancer enzyme therapy currently being tested in phase III trials, whose efficacy is based on blocking the production of arginine, an amino acid required for growth of certain tumors such as hepatocellular carcinoma (HCC). It is administered weekly by IM injection for at least 6 months, and is associated with moderate to severe and persistent fatigue, believed to be largely due to the inhibition of arginine production.

Characteristics of these nurses and the challenges faced when transitioning to a new environment, led us to examine theories of marginalization, reality shock and adult learning. To further promote a successful transition and to closely monitor progress, weekly individual meetings were scheduled with orientees, their preceptor, nurse educator, nurse leader and clinical nurse specialist. Regularly scheduled meetings with the Director of Nursing Education also served as a forum for open discussion and peer support.

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2330
GENETIC VARIANTS & OSTEOPOROSIS IN POSTMENOPAUSAL WOMEN WITH EARLY STAGE BREAST CANCER. Patricia Kelly, RN, MS, AOCN®, Texas Health Resources, Dallas, TX.

Bone health and risk for osteoporosis are significant survivorship issues for postmenopausal women with breast cancer. Breast cancer treatments specifically aromatase inhibitor (A.I.) medications accelerate bone loss by reducing circulating levels of estrogen. Aromatase inhibitor induced hypoestrogenemia increases the potential for osteoporosis in a postmenopausal population already at risk based upon age. Women with breast cancer may be at increased risk for osteoporosis based upon their diagnosis alone, a phenomenon that may be related to genetic factors common to both diseases. The vitamin D receptor (VDR) and the estrogen receptor alpha (Erα) genes are well-studied genes associated with bone growth in the general population; however, these genes have not been studied in the breast cancer population. Bone mineral density (BMD) is held to be the gold standard for evaluating osteoporosis risk. In general population studies, BMD variations have been shown to be associated with polymorphisms in the VDR and Erα genes.

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Genomics is the conceptual framework, gene-gene and gene-environment interactions and the relationship of genes to health and disease.

This longitudinal comparative descriptive study will involve three groups (N=45) of postmenopausal women. At study enrollment, women will have genotyping for polymorphisms in the VDR and Erα genes. Participants will have a BMD at baseline and yearly for two years. Descriptive statistics and repeated measures of variance will be used for data analysis.

Genetic pathways may help explain osteoporosis variability in postmenopausal women with early stage breast cancer. Baseline evidence is needed to establish osteoporosis screening, prevention, and treatment guidelines in this population.
The purpose of this study is to describe the incidence and level of fatigue in patients with HCC undergoing experimental weekly therapy with ADIPEG20, and to evaluate the impact of the implementation of evidence based nursing (EBN) interventions on fatigue incidence and grade.

We used the Orem’s Conceptual Model, to help patient recognize, refer and manage symptoms when they occur, because it is consistent with our institute’s philosophy.

120 patients were enrolled in our center from November 2003 to December 2006. Fatigue is evaluated at baseline and weekly using self report (0-10 scale) and CTC criteria (grade 1–4) fatigue scales, and Karnofsky performance status. Clinical exam and interview are conducted at each patient visit, and fatigue co-factors are documented. Individualized EBN interventions, adapted from the ONS PEP resources and NCCN guidelines, are designed for each patient after clinical exam and interview. All patients receive education about energy conservation, activity management, measures to optimize sleep quality, dietary indications including the avoidance of arginine.

We also created a brochure providing patients information to use at home to help them recognize and correctly refer symptoms to the medical team.

Nearly 80% of all patients experienced grade 2 or 3 fatigue early in the treatment course. Data reveal a reduction in patient reported fatigue by 3 points and in clinician assessed fatigue level by 1 grade in 60% of patients who received nursing interventions and emotional support. We reported data on fatigue experience over the course of treatment as well as the difference in fatigue experience in patients helped with psychological support.

Findings support the use of EBN interventions for fatigue management in HCC patients receiving experimental therapy.

2335
PREPARING ONCOLOGY NURSES FOR CONTEMPORARY SURVIVORSHIP CARE. Marcia Grant, RN, DNsC, FAAN, Betty Ferrell, PhD, FAAN, Smita Bhatia, MD, and Denice Economou, RN, MN, City of Hope, Beckman Research Institute, Duarte, CA.

Cancer survivors face multiple lifetime risks related to cancer and its treatment. In 2006 the Institute of Medicine report identified lack of knowledge of cancer late effects as one major barrier health care providers face in providing follow-up care to the 10 million cancer survivors.

The purpose of this NCI-funded study is to develop a health professional curriculum, recruit participants, conduct an educational program and evaluate and follow participants’ goal achievement over time.

The framework is composed of three concepts: institutional change, adult education principles, and the City of Hope Quality Life Model (COH-QOL). Multiple teaching strategies include: competitive application process, administrative support, goal-based education, participative learning, post-course networking and follow-up.

Four annual courses include pre-course and post-course (6, 12, & 18 month) evaluation data. Two-person interdisciplinary teams from cancer centers apply with at least one member being a nurse, physician, or administrator. Course content, organized around the COH-QOL domains: Physical, Psychological, Social and Spiritual, is delivered by expert faculty. Team selection includes stated interests, three projected goals and letters of commitment from administrators. Participants’ goals are evaluated at 6, 12, & 18 months for institutional changes in survivorship activities.

The first program was held July 13-15, 2006 for 53 teams (106 participants); 75% of the teams had one or more oncology nurses. The institutional barriers identified pre-course were lack of survivorship knowledge (94%), financial constraints (61%), staff philosophy that excluded survivorship (15%) and lack of administrative support (6%). Course evaluations revealed a rating of quality of content at 4.6 on a scale of 1-5 (5=best).

The 159 institutional goals used in following participants’ post program progress were divided into major categories: educational endeavors; changes in organizational structure; development of new clinical processes; specific survivorship activities; and research on survivorship. First 6 month follow up data will be presented and include the characteristics of institutional barriers and the experience of goal implementation.


2337
DEVELOPING ELECTRONIC CASE REPORT FORMS WHILE ESTABLISHING STANDARDS. Elizabeth Ness, RN, MS, National Cancer Institute, Bethesda, MD; and Dianne Reeves, RN, MSN, National Cancer Institute, Rockville, MD.

As a result of shrinking resources for the initiation and conduct of clinical trials, establishing strategies to maximize reuse of data collection tools becomes vital.

Creating a data collection tool [i.e.: case report forms (CRFs)] that can be quickly and systematically created and cloned is paramount. The eCRF ideally captures protocol-specific data in a manner to support the needs of the PI, institution, sponsor, and other regulatory/reporting groups. The use of controlled vocabularies to create metadata that defines the data collected needs to be available.

In 2002, the Center for Cancer Research (CCR) initiated a partnership with the National Cancer Institute Center for Bioinformatics (NCICB) to develop a single research database built according to best practices that could also maintain data from multiple disparate legacy databases. The database is called C3D - Cancer Clinical Centralized Database. Central to the successful development of the new database is the development of standard template electronic case report forms (e-CRFs). Each field within the eCRF is identified against common data elements (CDEs). If no CDE exists, curation of new CDEs within Cancer Data Standards Repository (caDSR) is completed. Finally, eCRFs, related instructions, and validation/derivation rules are developed. There are various stakeholders involved in the process and oversight is done by the CCR Configuration Control Management Group (CCMG).

C3D has over 125 clinical trials built with 90% of these having active data collection and reporting to various sponsors including both industry and government. caBIG adopters of the C3D templates in caDSR have been able to use up to more than 90% of existing content. There have been a number of lessons learned including the need to educate all stake holders about clinical trials and informatics.

The implications for the future include applying these processes, standards and infrastructure to the caBIG community and other groups including ONS. ONS can apply these results for their own research such as evidence-based practice research looking at symptom control/amelioration/measurement. Extension of CCR CCMG model to the caBIG community, with membership of CCR CCMG in the caBIG structure to harmonize business rules, workflow, strategies.

2338
PROMOTING OPTIMAL PATIENT OUTCOMES: MANAGING MORE THAN HIVES. Kimberly Camp, RN, BSN, OCN®, Duke University Hospital, Durham, NC.

Outpatient chemotherapy has progressed to a combination of targeted and cytotoxic therapies. Increased reactions with monoclonal
antibodies such as Erbitux have been seen. According to the package insert, 3% of patients who receive Erbitux will have an anaphylactic/anaphylactoid reaction. Rural areas of the United States have experienced the majority of reactions including North Carolina. Our rate of severe hypersensitivity reactions has been 3 times higher than the documented percentage in the package insert.

The purpose of this presentation is to review the process we undertook in developing our standing hypersensitivity orders and how we have implemented them into practice.

Interventions
Hypersensitivity orders were developed in collaboration with oncology nurses, pharmacists, and physicians. Benchmarking was done with other facilities and a review of the literature was conducted. A representative from our institution participated on the Erbitux Advisory Board which met to investigate and discuss the high rate of reactions experienced. The Journal of Allergy and Immunology offered recommendations for treating patients who had developed reactions to a variety of substances as well. With recommendations and a review of the literature, standing hypersensitivity orders were developed according to the symptom and level of severity and approved by the medical director and pharmacy. The orders were reviewed with nursing staff at a staff meeting and individually training was done for electronic initiation and documentation.

The hypersensitivity orders have decreased the time from reaction to intervention to almost zero. Nurses and physicians have provided positive feedback about the orders and are interested in developing additional orders to support patient care. Education regarding hypersensitivity reactions and targeted therapies is ongoing. We are currently evaluating the “orders” and the impact on patient outcomes.

Standing hypersensitivity orders allow oncology nurses to intervene immediately while the patient is at greatest risk. Ambulatory nursing has progressed to multiple modalities with a higher propensity for reactions. Infusion nurses are frontline health care providers who must be equipped with the tools to rescue the patient when needed.

2340 SLEEP PATTERNS IN THE INITIAL DAYS FOLLOWING CHEMOTHERAPY. Susan Beck, PhD, AOCN®, APRN, FAAN, and Bob Wong, PhD, University of Utah, College of Nursing, Salt Lake City, UT; Andrea Barsevick, DNSc, RN, AOCN®, and Katie Stewart, MSPH, Fox Chase Cancer Center, Cheltenham, PA; and Jacquie Williamson, MS, and William Dudley, PhD, Emma Eccles Jones Nursing Research Center, University of Utah, College of Nursing, Salt Lake City, UT.

Sleep/wake disturbances during cancer treatment commonly occur along with symptoms of symptom clusters. Research on symptoms including sleep disturbances remains an ONS priority.

The purpose of this study was to determine the extent to which sleep problems exist after initial chemotherapy and examine differences in sleep parameters based on pre-chemotherapy reports of being a good or poor sleeper.

This analysis examined baseline data from a randomized clinical trial of an intervention to improve fatigue and sleep during chemotherapy. This trial is guided by the Common Sense Model of Illness.

Participants completed baseline questionnaires at the initiation of chemotherapy including the Pittsburgh Sleep Quality Index, a 19 item reliable and valid measure of self-reported sleep parameters over the past month. Patients also wore a wrist actigraph for 3 days beginning on Day 1 of chemotherapy and completed a daily sleep diary upon arising. Action4 software was used to analyze the actigraph data using accepted algorithms. Sleep parameters were averaged over 3 nights. Integrated analyses were conducted with SPSS and included descriptive statistics, t-tests and RM-ANOVA.

Participants (N=177) were 83.6% female, mean age 53.27 (S.D. = 12.09). Numerous diagnoses and treatment regimens were included. The total sleep time averaged 458.69 minutes (S.D. = 91.31); sleep efficiency averaged 86.87%. 28% of the participants had sleep efficiency less than the recommended 85%. The number of awakenings ranged from 0 to 30 with a mean of 9.97. Subject’s time awake after sleep onset averaged 74.94 minutes (S.D. = 59.12). RM-ANOVA indicated no significant differences over the 3 nights. PSQI global scores ranged from 1 to 20, mean of 8.20. The PSQI global score > 8 indicated 68 (40%) poor sleepers during the previous month. Poor sleepers had significantly more awakenings, time awake after sleep onset, less total sleep time, and lower sleep efficiency. These findings indicate disrupted sleep patterns following chemotherapy for a substantial percentage of patients, primarily related to sleep maintenance. Baseline sleep assessment of poor sleep may indicate a patient is at greater risk for problems.

Funding Sources: NINR, R01 NR004573

2341 FEASIBILITY FOR TESTING THE THERAPEUTIC ADMINISTRATION OF AN ORANGE TO RELIEVE TASTE AND SMELL SENSATIONS ASSOCIATED WITH DIMETHYL SULFOXIDE (DMSO) DURING STEM CELL REINFUSION. Pamela Potter, APRN, BC DNSc, University of Washington School of Nursing, Seattle, WA; Seth Eisenberg, RN, OCN®, Seattle Cancer Care Alliance, Seattle, WA; and Donna Berry, RN, PhD, AOCN®, FAAN, University of Washington School of Nursing, Seattle, WA.

Autologous peripheral blood stem cell transplantation (SCT) is used to treat a number of malignancies. Collected cells are stored and frozen in liquid nitrogen using DMSO as a cellular preservative. DMSO has a noxious taste and odor that frequently produces unpleasant throat sensations, coughing, nausea, retching and vomiting (NRV). An untested and informal practice at a designated cancer center involved use of an orange to alleviate these symptoms.

This study purpose and specific aim was to test the feasibility for studying efficacy of sliced orange, orange aromatherapy, or deep breathing for relief of coughing, throat irritation, and NRV during reinfusion of stem cells cryopreserved in DMSO.

The Human Response Framework, incorporating individual vulnerability and environmental risk and the interplay of biological, psychological and social human responses that influence illness outcomes, provided the study’s conceptual foundation.

A randomized, Phase II pilot was conducted with 60 patients receiving at least two bags of cryopreserved stem cells. Forty-four men and 16 women were randomized to one of three groups: Orange (OG) (n = 19), Orange Aroma (AG) (n = 23), and Control (CG) (n = 18).

The study employed a time series design with an early versus late intervention format where CG participants were re-randomized after three cell bags to OG or AG. Data analysis controlled for weight, gender and infusion rate. Those reporting minimal symptoms who “did not use” the intervention were treated as missing in the “relief” analysis.

The groups were equivalent on demographics and baseline intensity symptoms. Data analysis demonstrated no significant difference in tickle/cough intensity, nausea or retching intensity, or incidence of vomiting among the groups. On a ten-point scale from 0 (none) to 10 (most relief), for the second bag of infused cells, the OG reported significantly (p = 0.041) more symptom relief than did the AG or CG. The OG demonstrated a trend (p = 0.059) toward more symptom relief over the first three bags than did the AG or CG. Findings
from this pilot suggest potential efficacy as well as clinical benefit for patients receiving autologous SCT. A definitive, multi-site, randomized trial is recommended.

2342
TIMELY COLORECTAL CANCER SCREENING IN AFRICAN AMERICANS. Kathleen Griffith, PhD, CRNP, AOCN®, Johns Hopkins University School of Nursing, Baltimore, MD; Keith Plowden, PhD, RN, and Deborah McGuire, PhD, RN, FAAN, University of Maryland School of Nursing, Baltimore, MD; Renee Royak-Schaler, PhD, ME, and Eileen Steinberger, MD, MS, University of Maryland School of Public Health, Baltimore, MD; and Louise Jenkins, PhD, RN, University of Maryland, Baltimore, MD.

African Americans have low rates of colorectal cancer (CRC) screening, and little is known about factors influencing their participation.

This study sought to identify biological, psychosocial/behavioral, and social factors that predicted timely CRC screening (i.e. completion of risk-appropriate tests within a recommended time frame) in African American (AA) men and women aged ≥ 40 in Maryland. Cancer screening and prevention have been ranked within the top 10 research priorities for ONS in both 2000 and 2004.

The Biopsychosocial (BPS) Model was used to guide this study.

Data from 580 AA participants in the 2002 Maryland Cancer Survey (MCS) were examined in a secondary analysis to determine whether biological (age, gender, CRC family history), psychosocial/behavioral (mammogram and prostate specific antigen [PSA] screening history, body mass index, activity level, fruit/vegetable consumption, alcohol, smoking, cancer concern, cancer perceived risk, perception of familial cancer), and social (education, employment, insurance, access to healthcare provider [HCP], and HCP recommendation of fecal occult blood test and/or sigmoidoscopy/colonoscopy) factors predicted timely CRC screening. Simultaneous, hierarchical block, and stepwise entry logistic regression analyses of individual and grouped variables were conducted.

For individuals without a family history of CRC (n=473), HCP recommendation of fecal occult blood test (OR 11.90, 95% CI: 6.84, 20.71) and sigmoidoscopy/colonoscopy (OR 7.06, 95% CI 4.11, 12.14), moderate/vigorous activity (OR 1.70, 95% CI: 1.02, 2.82), and history of PSA screening (OR 2.81, 95% CI 1.01, 7.81) predicted timely CRC screening. For individuals with a family history of CRC (N=86) recommendation of sigmoidoscopy/colonoscopy (OR 24.3, 95% CI 5.30, 111.34) and vigorous activity (OR 5.21, 95% CI: 1.09, 24.88) predicted timely CRC screening. CRC family history did not predict screening when age, education, and insurance were controlled.

HCP recommendation was the most important predictor of timely CRC screening, regardless of family history of CRC. Investigation of other potential predictors of screening not available in the MCS dataset and socioeconomic and other variables that limit access to HCPs is warranted.

2343
"WE CAN DO IT BETTER!!" AN INNOVATIVE STUDY BY DIRECT CARE ONCOLOGY NURSES TO OPTIMIZE THE CHEMOTHERAPY VALIDATION PROCESS. Brandi Swisher, RN, BSN, Deidre Kutzler, RN, BSN, Melissa Kratz, RN, MSN, AOCN®, Debra Peter, RN, BC, MSN, Maryann Rosenthal, RN, MSN, Christina Gogal, BS, and Joanna Bokovoy, RN, DrPH, Lehigh Valley Hospital & Health Network, Allentown, PA.

Oncology therapy has broadened considerably over the past decade. To promote safety and provide optimal up-to-date oncology care, it is essential for nurses to competently administer antineoplastic drugs.

Staff nurses on an inpatient oncology nursing unit at an 820-bed tertiary care Magnet community hospital initiated a study to identify novice and experienced nurse perceptions of the current chemotherapy validation process and to obtain recommendations for improvements in this process.

This study ascribes to Benner’s Philosophy in Nursing Practice to define skills and traits related to the chemotherapy validation process which are associated with novice or expert nurses.

These are the baseline results of a prospective, pre/post intervention study. Two unique surveys were designed, and face and content validity was established. The entire population of nurses (N=31) on the oncology unit of interest was selected and given one of two surveys: 1) Survey targeting experienced oncology nurses (preceptor for the chemo validation process and had at least 1.5 years experience on the oncology unit), and 2) Survey targeting nurses newly hired on the unit (not a chemotherapy validation preceptor and had two years or less experience on the oncology unit). A 5-point Likert scale was used to identify level of familiarity and experience with various chemotherapy administration procedures, and open-ended questions were included for more information and recommendations on chemotherapy validation process improvement. Quantitative data were analyzed using the SPSS statistical program. Open-ended questions were analyzed using qualitative methods.

As expected, novice nurses (N=15) were younger and had less oncology nursing experience than experienced nurses (N=16). Sixty-two percent of new nurses listed having either a preceptor or validation process as most helpful in the validation process. Sixty-three percent of experienced nurses felt that a validation checklist, an identified preceptor and a preceptor course were crucial for new nurses. Staffing was listed by both experienced and novice nurses as a barrier towards effective chemotherapy preceptoring. Results from this baseline survey are being used to create a better chemotherapy validation process to improve safety and care on this oncology unit, providing a template to be used on other oncology units nationwide.

2344
PRE-BONE MARROW TRANSPLANT WORKUP. Rose Kumpf, RN, OCN®, and Lisa Privitere, RN, OCN®, Roswell Park Cancer Institute, Buffalo, NY.

It has been demonstrated that pre-admission work-ups on the Bone Marrow Transplant (BMT) patients provide a thorough continuity of care that is beneficial to the Patient’s safety, emotional and financial state.

The purpose of the BMT workup is to ensure that the patient meets all of the necessary criteria and is well prepared to undergo a BMT. The workup process is a time when all the disciplines perform evaluations and conduct a multidisciplinary review. The inclusion criteria are evaluated for appropriateness and safety of the patient to undergo a BMT.

Interventions: This preadmission process facilitates nursing care by ensuring:

1. Patients understand the physical, emotional and financial aspects of the treatment
2. All pre-admission diagnostic tests and procedures are performed
3. All prescriptions have been checked and verified by nursing and pharmacy in advance
4. Patient process and flow at admission are improved
5. All investigational protocol requirements have been met
6. No reversed admissions on day of admit

The majority for this work up is the responsibility of the BMT nurses. The education process starts with the Family Meeting. The patient and caregivers are presented with the final treatment regimes.
and a detail time frame of the sequence of events with potential outcomes. At this time for the patient/family can express concerns or ask questions of all the different disciplines.

As a result of the pre-admission process, potential problems/issues are detected and resolved. With the criteria list and the pre-BMT admission packet a checklist is completed The ability to complete the tests on the criteria list as an outpatient is cost effective and more satisfying to the patient with one less day as an inpatient. The patient’s anxiety on day of admission is decreased due to the knowledge that the tests and procedures are complete with results. This is important for an Oncology Nurse because this process allows an environment for a detailed educational process specific to the exact needs of each patient pre during and post treatment of a BMT. Concerns that were discussed during the preadmission are monitored, and a plan of action placed prior to an emergency situation.

2347 ARSENIC—IT’S NOT JUST FOR KILLING RATS ANYMORE! Janice Carsello, RN, BSN, Lynda Peoples, RN, BSN, Martha Michael, RN, BSN, Teresa Moore, RN, Karen Trumbo, PharmD, and Jennifer Hauer, PharmD, Jefferson Home Infusion Service, Philadelphia, PA.

Approximately 10% of leukemias are diagnosed as Acute Promyelocytic Leukemia (APL). APL causes a rapid accumulation of abnormal white blood cells in bone marrow and blood, causing anemia, bleeding and susceptibility to infection. Arsenic compounds have been used medicinally for thousands of years. In the 1980’s, Chinese researchers first used arsenic to treat leukemia, after finding that arsenic was an ingredient in several Chinese medicines. Jefferson Home Infusion Service (JHIS) has developed a plan of care to deliver this cutting edge therapy to patients in their homes. The purpose of developing this care plan for arsenic (Trisenox®) administration was two fold. First, it enables our nurses to administer this potentially toxic medication to patients in their homes safely. Second, it allows the patient to receive the consolidation phase of their chemotherapy in the privacy of their own home. Induction therapy is administered in a hospital setting and should not exceed 60 doses. Patients are exposed to pathogens just by being hospitalized during this phase of treatment. There are also psychosocial issues related to the lengthy hospital stay necessary for completion of the induction therapy. Consolidation therapy is started 3 to 6 weeks after induction therapy is completed. JHIS provides patients with a safe alternative to being confined to the hospital or an outpatient infusion center during the consolidation phase of Trisenox® therapy. The patient continues to tolerate Trisenox® at home, and has experienced no significant adverse reactions. Our experience in undertaking this innovative home infusion therapy bodes well for expanded use, suggests that, with judicious planning, Trisenox® can be safe and beneficial treatment at home.

New, innovative treatment strategies are always being developed to battle cancer. Nurses must be cognizant of the many issues surrounding their patients, not just which patient gets what drug. There are financial, psychosocial and quality of life issues that must be considered when a patient starts a drug treatment protocol. JHIS has enabled a patient population that would, just a few years ago, have been hospitalized for several months, to receive this cutting edge treatment while at home.

2348 THE ROLE OF THE CLINICAL TRIAL NURSE. Donna Catamero, RN, CCRC, OCN®, Margaret Coursen, RN, OCN®, Louise Lynch, RN, Sara Parise, RN, BSN, Zeonona Lesko, RN, BSN, Sue Moore, APRN-BC, AOCNP, and Kathleen Mullaly, MSN, NYU Cancer Institute, New York, NY.

The role of a clinical trial nurse (CTN) in an NCI designated academic cancer institute provides the opportunity to participate in cutting edge research. A better understanding of the highly specialized skills required of the CTN is needed. Standardization of the role is challenging due to numerous disease specific protocols implemented at multiple sites, with varied levels of complexity. Lack of role delineation and standardization of processes results in decrease utilization of expert CTN resources and leads to duplication of effort.

The purpose of this project is to define and describe the role of the clinical trials nurse.

Components of the Benner Model were used to define the level of CT nursing knowledge and skill. The novice level builds on knowledge base through practice and participation in the CT process. The competent level works autonomously and acts as a resource for the novice CTN. The expert level has an intuitive understanding of all aspects of clinical trials and acts as a resource for the multidisciplinary team.

While defining and describing the role of a CTN the following were developed: 1) A CT competency evaluation tool that includes skills and knowledge required to a) Review and critique a protocol b) Screen patient for eligibility c) Participate in the informed consent process, clinical activities, regulatory/economic components and quality improvement. 2) An educational program for CTN’s including a) Orientation b) Ongoing education c) Core competencies. Defining the role and educational needs of the CTN allows for identification of expert speakers and mentors.

The following will be evaluated: 1. Pre and post tests for all CE approved education programs 2. CTN job satisfaction and 3. Peer evaluations using the competency tool.

The CTN plays a pivotal role in maintaining the integrity of the protocol. Defining the CTN role provides an opportunity to better utilize their expertise.

2349 NURSING COUNCIL MODEL OF SHARED GOVERNANCE SPANNING THREE ACADEMIC MEDICAL CENTERS. Anne Gross, RN, MS, CNA, Dana-Farber Cancer Institute, Boston, MA; Patricia Branowicki, MS, RN, CNA, Childrens Hospital, Boston, MA; Sheila Rozanski, RN, Dana-Farber Cancer Institute, Boston, MA; and Colleen Nixon, BSN, CPON®, Childrens Hospital, Boston, MA.

Collaboration across a continuum enables oncology nurses to work together to tackle common problems to ensure safe and comprehensive patient care. Nurses from our three academic medical centers formed the Nursing Council to address practice issues common to the single Cancer Center that spanned our separate institutions. The Council merged existing practice committees to create a single entity where nurses from all areas could participate and contribute their unique expertise within a Shared Governance model.

The purpose of the Council was to identify shared priorities for clinical practice and policy, integrate nursing committee work, assure a single standard of care, monitor projects and provide a vehicle for shared decision making, information sharing and quality improvement. Goals have been set and achieved through the delegation of work within the various committees of the Council. Our framework is based on the Shared Governance conceptual model.

Now in its third year of operation, the Council, uses the following structure and processes to accomplish its goals:

• Membership is open to all nurses in the Cancer Center.
• RNs from leadership and clinical staff are co-chairs of Council committees that are comprised of representatives from the Adult & Pediatric Cancer Programs.
• Priorities, outcome measures and timelines for achieving goals are set annually.
• Bi-annual reports from all committees are reviewed and discussed at Council meetings and communicated to all nursing staff electronically.
• Council co-chairs serve as liaisons to the Nurse Executive Board.

The Council is evaluated bi-annually using a survey instrument that is distributed to all Council members. Findings from the latest survey show that 81% of the members rate the Overall Performance of the Council as good/excellent; areas still needing improvement are: Involvement of Nursing Staff at All Levels and Communication to Front Line Staff. A plan has been activated to address the areas of concern.

Oncology nursing practice can be enhanced when nurses come together via shared governance to identify and resolve common practice issues and concerns. Information about how our Nursing Council functions could assist oncology nurses’ efforts to develop governance structures that help foster co-operation and shared decision-making across practices or institutions.

2350 IMPLEMENTATION OF AN INTERDISCIPLINARY TEAM TO IMPROVE MEDICATION SAFETY. Katie Mullaly, Joan Scaglione, MSN, AOCN®, Thomas DelCorral, RPh, MS, Vera Sziklai, RN, James Speyer, MD, Elizabeth Duthie, RN, PhD, and Kevin Kirchen, MHA, NYU Hospitals Center, New York, NY.

Medication delivery in an ambulatory cancer center is a complex process that includes prescribing, processing, dispensing, administering and side effect monitoring. A review of errors in the infusion area of the Clinical Cancer Center revealed that volume was low compared to the number of drugs administered daily; however each potential error carried a high patient safety risk.

An Interdisciplinary Medication Safety Committee was organized consistent with the ONS position statement on medication safety. Membership included nursing, pharmacy, patient safety officer, medical director, and administration. The goal of the committee was to develop and implement a system that would improve communication and to facilitate the detection and correction of errors before they reach a patient and cause harm.

A root cause analysis of near miss/medication errors was conducted which revealed multiple system issues. An action plan was developed and implemented that included the following: an anonymous medication safety hotline, pharmacy system redesign, mandatory treatment plan, specific chemotherapy agents mixed prior to patient appointment, centralized nursing model changed to primary nursing, electronic ordering system, nursing/physician teams developed to improve communication.

Weekly meetings were organized to identify and address issues related to the ongoing changes. Frequent communication with all stakeholders was crucial to the success of this initiative. Achieved outcomes included appropriate utilization of hotline, decreased number of near miss errors, and implementation of electronic orders. The electronic orders resulted in the elimination of incomplete and illegible orders, increased accessibility to order entry/review for clinicians, decreased patient wait time and improved staff satisfaction.

Consistent with the ONS position statement on medication safety, the medication safety committee’s aim of preventing future errors and potential patient harm was realized. Nursing, physician and pharmacy staff report improved communication, staff satisfaction, ease of work flow and increased productivity. Patients are pleased with the decreased wait time.

2353 INCORPORATING RESEARCH INTO EVERYDAY PRACTICE FOR ONCOLOGY NURSES. Mary Ann Long, BSN, RN, OCN®, Joyce Yasko, PhD, and Maureen Kelly, MSN, Roswell Park Cancer Institute, Buffalo, NY.

Research is a major component of a National Cancer Institute designated comprehensive cancer center. Oncology nurses make significant contributions to clinical research study initiation, implementation and data collection. Although oncology nurses are frequently immersed in providing care for patients enrolled on research studies, the information about study outcomes and future applications often does not reach the individuals that implement the research studies and document the study data points. Providing this information will encourage the nurses to become advocates for research studies as well as experts in providing care to patients enrolled in research studies.

A multidisciplinary group was formed to provide monthly presentations that will include an overview of research studies that were implemented on site including the study results. A single page of study highlights was given to the nurses to take back to their respective areas to share with their peers.

An increase in the knowledge base of nurses that have attended the programs has been realized. There is also an element of pride that the nurses now have knowing that they played an integral part in achieving the study outcomes.

Implementing a plan for sharing research study information with the stakeholders allowed the nurses to become more knowledgeable about the outcomes of the studies they have implemented and to understand the important role that clinical research plays in creating evidence based cancer treatment and care for the future. A formal evaluation of nursing satisfaction with this process has not been undertaken but will be available at the time of the presentation.

2357 THE IMPORTANCE OF PROVIDING EDUCATION TO INPATIENT MEDICAL ONCOLOGY NURSES CARING FOR PATIENTS WITH SEALED AND UNSEALED RADIATION SOURCES. Jennifer Graff, RN, BSN, OCN®, CHPN, Thomas Johns Cancer Center, Richmond, VA.

Approximately 50% of oncology patients will receive radiation as a component in their treatment. This includes either external beam or brachytherapy with a sealed or unsealed radiation source. Knowledge of radiation safety precautions are of utmost importance for the oncology nurse caring for a patient with an internal source.

The purpose of this program was to increase awareness of radiation, radiation sources, types of cancer treated with internal radioactive sources, and safety precautions for the nursing staff caring for this patient population.

Education on radiation safety was provided to the inpatient medical oncology nurses, with a pre and post test method utilized to evaluate knowledge, as well as an emotional assessment utilizing a Likert-type scale. The cognitive component of the test included multiple choice questions, a number of which were taken from the ONS Radiation Oncology Manual. The emotional component assessed the participant’s feelings on their ability to care for patients receiving internal radiation sources, the ability to explain radiation safety precautions, and maintaining safety from exposure. This program was taught by an interdisciplinary team, including a dosimetrist, a radi-
ology technologist, oncology clinical nurse specialist, and oncology certified nurse.

In the cognitive test, the mean score from the pre-test to the post-test (after the educational intervention) rose almost 20%. Equally as important, nurses rated their comfort level with caring for these patients much higher as well as their ability to provide education to patients and other staff members as well. The emotional component also showed an improvement in the level of safety staff felt regarding the risk of radiation exposure following the education program.

Radiation safety is of paramount significance to nurses caring for patients receiving internal radioactive sources. Ensuring that the nursing staff is well educated and very comfortable with this patient population is vital. Therefore, just as recertification for all nurses who administer chemotherapy occurs yearly as most institutions, renewal of radiation safety knowledge should also occur. This will serve to not only update the staff’s knowledge, but also to increase their comfort level with radiation safety measures.

2361 PATTERNS OF FATIGUE AND EFFECT OF EXERCISE IN BREAST CANCER PATIENTS RECEIVING CHEMOTHERAPY. Horng-Shiuann Wu, PhD, RN, Marylin Dodd, PhD, RN, FAAN, and Maria Cho, PhD, RN, University of California San Francisco, San Francisco, CA.

Cancer-related fatigue (CRF) is long lasting and the most impairing cancer-related symptom. Its mechanisms have not been established; its fluctuating nature makes CRF difficult to manage. There is a need for systematic evaluation of different therapies, including exercise on CRF.

To examine the daily pattern of CRF during the third cycle of chemotherapy in women with breast cancer; to predict whether CRF trajectories differ by exercise behaviors.

Piper’s Integrated Fatigue Model.

The data were collected as part of a randomized clinical trial to test the effectiveness of a systematic exercise intervention on fatigue. A total of 98 female breast cancer outpatients, ages 28 to 72 (M= 49.5, SD=9.3), majority (79%) receiving standard doxorubicin/cyclophosphamide (AC) chemotherapy, in five cancer centers were included in this report. Exercise behaviors, defined by the Surgeon General’s Guideline for Physical Activity, were classified as exercisers (n=40) or non-exercisers (n=52). Fatigue intensity was measured daily at bedtime for the entire 21-day cycle, beginning on the first day of the third chemotherapy cycle. Average and worst fatigue levels in the last 24 hours were measured on an 11-point numeric rating scale ranging from 0, no fatigue/tiredness, to 10, overwhelming fatigue/tiredness. Multilevel modeling was used to estimate how fatigue changed over time and with exercise behaviors.

The predicted average and worst fatigue on the first day of chemotherapy for non-exercisers was 4.7 and 6.2. Non-exercisers experienced 1.1 (P<0.01) higher average fatigue and 1.2 (P<0.01) higher worst fatigue than exercisers on the first day of chemotherapy. Average and worst fatigue declined significantly over time (P<0.001) and the decreases were not significantly different in exercisers and non-exercisers. Results also demonstrated a cubic change trajectory of daily fatigue during the third cycle of chemotherapy, with a peak right after chemotherapy and a trough few days before the next cycle.

Information on the pattern of fatigue is crucial in preparing cancer patients for chemotherapy and determining the timing of interventions and measurement of outcomes. This report furthers the understanding of the pattern of fatigue and the effect of exercise.

2362 MEETING THE NEEDS OF NURSES NEW TO ONCOLOGY. Elizabeth Glemser, RN, BSN, OCN®, Susan Lindsey, BSN, RN BC, OCN®, and Melissa Andres, BSN, RN, Clarian Health, Indianapolis, IN.

At the end of 2001 there were over ten million people in the US living with cancer. Last year it was predicted that 1.4 million new cases would be diagnosed, yet most schools of nursing do not provide a focus in oncology.

Transitioning from nursing school or from another area of nursing into oncology causes stress, frustration and anxiety for the nurse, his/her peers, and most importantly the patient and family. Either situation catapults the nurse into an advanced beginner stage. There are generic programs that have been designed to ease this transition such as internships and residencies. They are geared toward the task related needs of the new nurse. These programs, however do not address the needs of the “seasoned” nurse new to oncology.

We have successfully addressed these issues by developing a program called OncCollege. The overall goal of the program is: Expand basic nursing knowledge to incorporate the unique needs of the adult oncology population. This provides a foundation from which the oncology nurse can promote and participate in safe, high quality, holistic oncology care.

OnCollege consists of six sessions that are eight hours long, over six consecutive weeks. The content includes a variety of topics designed to differentiate between the nursing care (assess, plan, implement, evaluate) of a medical/surgical patient and nursing care of the oncology patient. Focus topics include pathophysiology and epidemiology of cancers, treatment options, quality of life, oncologic emergencies and stem cell transplant. Incorporated within the topics are critical thinking, collaboration and terminology.

A Basic Knowledge Assessment Test (BKAT), specific to oncology, was developed. This test is administered prior to the course and at the end. Additional data was gathered prior to the first offering of the course and continues to be collected. This data includes patient satisfaction scores, safety and risk management data and also nursing satisfaction surveys.

This presentation will share with you how we developed this course and the lessons we learned. Discussion will include curriculum, objectives, content, teaching strategies and evaluation methods.

2363 FROM CHEMO-CAUTIONS TO CHEMO QUEENS—DEVELOPING CONFIDENCE AND COMPETENCE IN A NEW CHEMOTHERAPY ADMINISTRATION SERVICE. Elaine Griffin, MSc(A), RN, AOCN®, Jasmine Matawaran, RN, BSN, Donna Vasichko, RN, CMSN, Rosa Strahan, RN, BSN, Akram Mirhamadliva, RN, CMSN, and Tina Cutrer, RPh, MS, Presbyterian Hospital of Plano, Plano, TX.

With the growth in oncology programs over the past several years, many small-to-medium sized suburban and rural hospitals now offer oncology services. The initiation of chemotherapy administration is challenging to staff nurses. It frequently occurs on non-dedicated oncology units, provided by nurses inexperienced with oncology patients. The experienced preceptors found on established oncology units are absent as are many human and informational resources. This creates high anxiety for practicing these new skills in a safe and competent manner and increases the risk for error.

This abstract describes the initiation of a successful program for progressive chemotherapy competence and clinical support in a new oncology program.

Interventions include education, informational resources, and clinical and administrative support. In addition to the Chemotherapy and
Biotherapy Course, nurses also receive education related to safety and oncology patient care. Informational resources are rapidly acquired or developed in response to staff needs. Beginning with informal unit leaders, nurses were precepted by the CNS and gradually developed into the preceptor role. Chemotherapy administration initially was restricted to times when adequately competent staff were available; availability of service increased with staff confidence and competence. Nurses have the option of continuing to work informally with a preceptor after completing required education and skill validation; the endpoint of the precepting experience is confidence, not just competence.

After 1 year, 75% of eligible nursing staff is administering chemotherapy without CNS supervision. Performance on all nursing-sensitive quality indicators for chemotherapy meet or exceed national benchmarks. Staff nurses express confidence with their chemotherapy administration skills and are enthusiastic in promoting their new specialty to others. Patient and physician satisfaction is good and the oncology program has grown ahead of initial projections.

The successful implementation of a new service requires the staff to be confident in their own competence. Critical to our program is responsiveness to the needs of the staff. Support and flexibility from administrators and oncologists has been essential to make this work. Our program has been very successful in developing nurses who feel confident as well as competent.

2365
NURSING EDUCATION FOR NEPHRON SPARING SURGICAL INTER-VENTION FOR RENAL MASSES. Colleen Hughes, RN, and Anna Giallo-Uvino BSN, OCN®, Memorial Sloan-Kettering Cancer Center, New York, NY.

The American Cancer Society estimates 38,890 new cases of kidney cancer this year, 70% of which are 4.5cm or smaller. Radical nephrectomy surgery, historically the primary treatment of kidney masses, involves removing the whole kidney, adrenal gland, and fatty tissue. Partial nephrectomy, or nephron sparing surgery, is the removal of only the cancerous portion of the kidney. Small tumors are amenable to nephron sparing surgery. Previously, partial nephrectomy was only indicated in patients with one kidney, or with bilateral renal masses. Partial nephrectomy is now becoming the treatment of choice for small kidney tumors with healthy contralateral kidneys.

Research indicates that partial nephrectomy has an advantage in maintaining optimal renal function, avoiding the development of chronic kidney disease. Ten years of data has shown comparable oncological outcomes between partial and radical nephrectomies. This presentation describes the nursing management for patients with renal masses who have elected to undergo partial nephrectomy. An overview of the surgery and the patient education plan to guide the patient through this intervention will be discussed.

Partial nephrectomy is a challenging procedure, associated with higher short-term, surgical risks. Nursing intervention involves preoperative teaching and postoperative care. The surgical care plan contains an overview and instructions on coughing and deep breathing, progressive ambulation, and pain management but particularly focuses on the complication of partial nephrectomy including hematomas, hemorrhage, and urinary fistulas requiring prolonged percutaneous drainage and its management. The model of patient education is a collaborative effort between outpatient and inpatient nurses providing patients with uniform instructions throughout their surgical process.

At this comprehensive cancer center, the number of partial nephrectomies surpasses that of radical nephrectomies proving the surgery is a safe, effective treatment with long term renal functional advantages. Nationally, partial nephrectomy remains underutilized, limited to tertiary care centers. The implementation of the inpatient/outpatient nurse liaison enhances the patient educational program ensuring continuity of care.

The progressive use of partial nephrectomy requires a high level of nursing awareness, and preparedness with an accurate knowledge base. Patients educated on the surgical care plan will participate in preventative measures to limit complications, seeking intervention when needed.

2366
THE PROVISION OF PALLIATIVE CHEMOTHERAPY IN HOSPICE: A NATIONAL COHORT STUDY OF HOSPICES AND HOSPICE PATIENTS. Terri L. Maxwell, PhD, APRN, BC-PCM, and Kevin T. Bain, PharmD, BCPS, CBP, FASCP, excelleRx Inc., Philadelphia, PA; and Julie A. Schalski, PhD, RN, FAAN, University of Pennsylvania School of Nursing, Philadelphia, PA.

The design of the Hospice Benefit in 1982 reflected the reality of cancer treatment at that time; treatments were usually very toxic and few palliative therapies were available. Recently, a broad range of palliative chemotherapy agents have become available, challenging hospice requirements related to discontinuation of therapies prior to enrollment. Some hospices are now admitting patients receiving chemotherapy to improve access and increase hospice length of stay (LOS) for these patients.

Purpose: To identify hospice organizational factors associated with the provision of oral palliative chemotherapy, to characterize patients who received oral chemotherapy in hospice, and to examine differences in hospice LOS among patients that did and did not receive these therapies. This study provides insights into ONS research priorities such as decision-making in advanced disease, palliative, and hospice care.

Exploratory, descriptive correlational design using secondary analysis of data from a national pharmacy provider of patients admitted to hospice with a diagnosis of brain, breast or lung cancers between 1/01/03 and discharged or expired as of 6/30/05.

Sample was comprised of 58,154 patients enrolled in 544 hospices. 43.6% of hospices provided chemotherapy to 1,140 patients. Hospice size, profit status and geographical region were statistically associated with providing chemotherapy, but after including these factors in a logistic regression model only hospice size and profit status were significant, with large-sized and not-for profit hospices most likely to provide chemotherapy. Non-profit hospices were 5 times more likely to provide chemotherapy, independent of hospice size. Chemotherapy patients were 4 years younger compared to non-chemotherapy patients. Receiving chemotherapy was not associated with gender, race, diagnosis, or discharge status. Chemotherapy patients were in hospice approximately 2 weeks longer compared to non-chemotherapy patients (p <.001) and had on average, a 9-day increase in median length of stay, with both breast and brain cancer patients increasing their median length of stay by 2 weeks. A change in Medicare’s payment system that explicitly recognizes palliative chemotherapy may increase access to hospice services. However, the removal of financial barriers may increase access at the organizational level, but the demand from patients may be lacking. Future research should focus on outcomes of providing chemotherapy in hospice.

2370
USING KARNOFSKY PERFORMANCE STATUS (KPS) OF BONE MAR-ROW TRANSPLANT (BMT) PATIENTS AT TIME OF TRANSPLANT AS A PREDICTOR OF OVERALL SURVIVAL OF PATIENTS WITH ACUTE
Refractory AML and MDS are difficult diseases to manage due to recurrent disease.

We retrospectively reviewed 47 consecutive patients with AML (n=36) or MDS (n=11) who received a first related (n=23) or unrelated (n=24) Allogeneic BMT between 4/1/2003 and 3/31/2006 at Roswell Park Cancer Institute (RPCI) to compare outcomes by pre-BMT disease status.

16 patients had a KPS of 100% to 90% and 31 had a KPS of 80% or less.

Examples of additional patient factors analyzed in addition to KPS relative to outcome were diagnosis, disease status conditioning regimen, HLA matching, graft versus host disease (GVHD) prophylaxis, viral infection, fungal infection, age, ejection fraction, select pulmonary function tests (PFTs). KPS was the only significant predictor of overall survival.

The good of this project is to identify what factors other than cytoreducing the patient before hematopoetic stem cell transplant (HSCT) such as KPS, age and human leukocyte antigen (HLA) status affect outcome. Patients with a KPS<90% have been identified as high risk for poor outcome and are monitored more closely with a stringent assessment. Communications among the interdisciplinary team are prioritized for immediate response.

We participated in a retrospective cohort study of 116 consecutive AML and MDS patients between 1/1/2003 and 7/1/2006. Of this patient population 47(41%) actually received an allo HSCT at our center. As a result of our findings our standard nursing orders have been revised to address the potential acuity of a patient with a low KPS to ensure early detection of status changes. We have also reduced the intensity of the conditioning regimens, using re-induction strategies that do not compromise KPS.

That low KPS is a strong predictor of poor long-term disease free survival (LFS) and overall survival (OS).

A specialized research team is integral to the successful implementation of a clinical trial (CT) program. A cancer institute that is partnered with hospital and ambulatory clinical care provides the opportunity to offer innovative scientific and disease focused research programs. The increasing number of complex CTs presents challenges that are coupled with increasing regulatory requirements and economic constraints. Collaborating with all members of the interdisciplinary team is key to achieving a successful CT program.

A task force was organized to develop a CT tracking tool that describes all elements of a clinical trial, and identify the members of the interdisciplinary team who are accountable for each element. The purpose of the tool was to clarify each member’s role and promote utilization of essential team member’s skills and knowledge in order to decrease duplication of effort and increase communication among the interdisciplinary team.

A CT tracking tool that includes elements of a clinical trial including protocol pre-activation, screening, eligibility, informed consent, active treatment, regulatory/economic components, quality improvement, patient tracking and reporting was developed. Included in this tool is a column indicating responsible individual (principal investigator, research RN, infusion RN, data management, regulatory, pharmacy, lab, and clinical trials office). Nurse to clinical trial ratio based on complexity and nursing time was defined. A weekly CT interdisciplinary feasibility meeting was organized to ensure that resources needed to address the above listed CT elements were available prior to a trail going to the IRB.

The CT team has a streamlined system that facilitates the flow of the trials demonstrated by less time spent in trouble shooting after a trail has been approved. Transparency regarding work load and need for cross coverage was established. Regulatory and financial documentation have improved while enrollment to clinical trials continues to steadily increase.

Including stakeholders in the development and implementation of the CT tracking tool successfully fostered partnerships among members of the research program.

2374 ONCOLOGY NURSING EDUCATION AND OBSERVATION PROGRAM FOR HIGH SCHOOL STUDENTS. Teresa Campbell, RN, BSN, OCN®, Memorial Sloan-Kettering Cancer Center, New York, NY.

In light of the significant nursing shortage, and waning interest in Oncology, the need to recruit students at the high school level and develop an interest in Oncology is both relevant and important. The literature describes in detail the need for novel approaches to address the shortage, providing an ample background for this program.

The purpose and rationale, supported by evidence in the literature, is clearly defined and described. The conceptual model used is an educational model, steeped in hands-on experience and acute observation.

The interventional program does accomplish the purpose of opening the door of nursing in general, and oncology in particular, to the high school student population. The varied experiences in this pilot program were exciting and appropriate, and allowed the student a monitored, but independent hands-on, experience.

The project goals are evaluated as an individual case study, as the pilot has just been initiated. The outcomes are applicable to Oncology nursing and have been very positive.

The implications for Oncology nursing practice, particularly in educating the high school population, have been enormous and their use in the future is wide open. Suggestions are included for specific site changes and experiences, as are suggestions for growth of the program.

2375 EARLY DETECTION AND MANAGEMENT OF ADVERSE EVENTS ASSOCIATED WITH IPILUMIMAB: HOW THE RESEARCH NURSE PLAYS A VITAL ROLE. Catherine Levy, MS, BSN, RN, and Tamika Allen, RN, BSN, National Institutes of Health, Bethesda, MD.

Ipiplumimab is a monoclonal antibody currently being used in clinical trials in a variety of diseases including melanoma, renal cell carcinoma, and adenocarcinoma of the pancreas. As Ipiplumimab begins the fast track process for FDA approval, it is essential that oncology nurses understand the importance of early detection and management of potential adverse events.

The primary action of Ipiplumimab is to inhibit the CTLA4 molecule found on the surface of T cells and potentially enhances immune responses against cancer. However, Ipiplumimab can result in autoimmune events such as colitis, hypophysitis, uveitis, dermatitis, hepatitis, and/or nephritis. Autoimmune events correlate with a higher rate of tumor regression. The research nurse plays an important role in the assessment and reporting of adverse events. Nursing responsibi-
ities include providing comprehensive patient education, collection and analysis of patient symptoms, and monitoring laboratory values. Constant surveillance of adverse events facilitates prompt treatment to prevent long term or potentially fatal complications.

The research nurse’s role in educating study subjects on potential adverse events is part of the informed consent process. This process is ongoing as study participants remain enrolled on the clinical trial. Study subjects are provided with a Symptom Management Log to document any new symptoms. Examples of symptoms from Ipilimumab include diarrhea, abdominal cramping, fatigue, headaches, arthralgias, any visual changes, and any skin changes such as rash, itching, or discoloration. These symptoms appear anywhere from one week to a few months after receiving therapy.

Each situation is evaluated individually and may warrant further work-up. Pending evaluation, steroid therapy may or may not be initiated. Steroids are not utilized as a front line therapy in mild forms of autoimmune events as they may inhibit immune response, however steroids may be indicated for severe autoimmune events such as colitis or hypophysitis.

As more clinical trials use Ipilimumab, unknown autoimmune events may surface. It is imperative that the research nurse maintains ongoing communication and close surveillance with participants who receive Ipilimumab.

### 2376

**PROMOTION OF LEADERSHIP WITHIN A SHARED GOVERNANCE MODEL**. Gabrielle Arauz, RN, BS, OCN®, and MaryEllen Schwarzbek, RN, BS, MA, OCN®, Memorial Sloan-Kettering Cancer Center, New York, NY.

At this (NCI) designated cancer center, a shared governance model has been implemented to allow nursing to participate in the decision making process that directs their practice. Shared governance is facilitated via a formal council structure comprised of ambulatory nurses. Recently it became increasingly difficult to find staff to chair these councils. Chairmanship is voluntary, and poses additional challenges and responsibilities beyond the assigned nursing role. Past chairs reported feeling overwhelmed, under supported, and unprepared to handle their council leadership responsibilities.

A task force was formed and consensus was reached, that newly elected chairs and chair elects would benefit from an educational overview to prepare them for their new roles. The purpose of this presentation is to describe the leadership development program developed for these inexperienced leaders.

The program is multifaceted and addresses the complex needs of the council leadership. An introductory session is held for chair elects to introduce them to their roles and responsibilities. Additionally, three training classes are highly recommended to help prepare these new leaders for obstacles they may face. Classes included information on running meetings and suggestions on how to interact with different personalities within the council. Each class is a full day, and is offered through the human resources department. The classes are Nature of Teams, Understanding Behavioral Styles, and Facilitation Skills. Lastly, there are two informal support sessions in which case scenarios are presented and discussed.

Feedback from these programs has been positive. The nurses report increased camaraderie, support and preparedness for their role. The program has been evaluated through verbal feedback from program participants. Evaluation will be performed on a continual basis with each new group of council chairs and chair elects.

During this national nursing shortage it is essential we offer education and training programs within our institutions to foster professional growth and development. Through a variety of educational strategies, continued follow-up and open communication, we are able to recognize the success and struggles of the council leaders. This approach encourages staff to participate, promotes leadership and offers nurses a greater sense of empowerment.

### 2377

**EXPANDING THE ROLE OF RESEARCH NURSES IN AN ITALIAN GYNECOLOGIC ONCOLOGY COOPERATIVE GROUP**. Marzia Falanga, BSN, Azienda Ospedaliera San Giuseppe Moscati, Avellino, Italy; and Marianna Connola, BSN, and Jane Bryce, RN, MSN, National Cancer Institute, Naples, Italy.

Cooperative oncology groups have a long history in Italy while research nursing is relatively new. The oncology nursing literature promotes an expanded role for nurses in cooperative research groups. The purpose of this project was to establish a network of clinical research nurses (CRN) within an Italian oncology group and to identify strategies for maximizing their potential contribution.

A group of CRNs began collaborating in May 2006 after being identified through a survey sent to all Investigators of the Multi-center Italian Trials in Ovarian cancer and gynaecologic malignancies (MITO) cooperative group. Through brainstorming, a literature review, discussions with the MITO leadership, and contacts with international gynaecologic oncology groups the nursing group identified 4 initial objectives for improving patient care and research nursing practices: to establish the use of nursing summaries for MITO conducted trials, to identify potential companion studies and other nursing research projects in this patient population, to establish formal contacts with international gynaecologic oncology nursing organizations, and to increase role visibility through presentations and publications.

The pilot nursing summary was written in October 2006 and establishes minimal protocol content for MITO conducted trials. Two nursing research projects are in development: a companion study within a future MITO trial with Intraperitoneal chemotherapy, and an independent nursing research study of the validation of the Italian version of a symptom assessment tool. MITO is a member of the Gynecologic Cancer Intergroup (GCIG), and the MITO nurses have established contacts with GCIG nurses, and participated in the first study coordinators meeting. Further, a chapter on Italy in the ONS Manual for Clinical Trial Nursing is in press, authored by MITO nurses. MITO courses have now included nurse presenters and an IP chemotherapy nursing protocol was published within the MITO group in December 2006.

Though the collaboration is in its early stages, these early successes of the MITO nurses has stimulated interest in continuing to work toward achievement of the initial objectives, and to use this model for expanding the role of research nurses in other Italian cooperative oncology groups.

### 2380

**MAINTENANCE OF THE IMPLANTED CENTRAL VENOUS PORT: USING EVIDENCE-BASED PRACTICE TO REDEFINE THE NURSING POLICY**. Annemarie Flaherty, RN, MS, AOCNS, CNCS, Nancy Houlihan, RN, MA, AOCN®, Kim Mertens, RN, MSN, AOCNS, Suzanne Sweeney Gornell, RN, BSN, OCN®, Joanne Taylor, RN, MA, AOCN®, and Nicole Leonhart, RN, MS, ANP, Memorial Sloan-Kettering Cancer Center, New York, NY.

Implanted central venous catheters (I-CVCs) play a major role in oncology care but are associated with long term risks of infection, thrombosis, and catheter malfunction. Despite routine flushing, 41% of I-CVCs result in thrombosis of the vessel, which increases the
risk of infection. With the growing use of oral agents and successive chemotherapy regimens, I-CVCs are increasingly unused for extended intervals. Patient visits for flushing may create nuisance and non-reimbursable expense, and compliance can be problematic. Yet, complications may be greater beyond a 4-6 week flushing schedule. Review of nursing policy at this institution revealed a lack of evidence-based (EB) guidelines for long term I-CVC maintenance.

The Evidence Based Practice subcommittee identified this lack of clear practice standards as a dilemma in caring for long term patients. We applied an EB approach to investigate a specific time interval for flushing an I-CVC when not in routine use.

A comprehensive review of the evidence included: review of the published literature, guidelines, and manufacturer recommendations and consultation with identified experts. In analyzing institutional complications, we performed a retrospective chart review of patients treated with Alteplase®. Data was collected about complications and risk factors.

We found limited information in our review to support a specific time frame for flushing unused I-CVCs and validation from expert opinion of the universal need to set practice standards. Our chart review was inconclusive because of inconsistent documentation. Outcome variables included type of infusion, efficacy of flush, and overall catheter functioning. Based on this review current nursing policy is under revision to clarify long term I-CVC maintenance and related documentation, with a plan for re-education of staff.

Application of an evidence based methodology to solve a clinical question guides quality care initiatives. We learned that long term I-CVC maintenance is an under-studied practice issue. Lack of randomized clinical trials creates a dilemma for best practice recommendations. This presentation, which will describe our EB process and the results of the evidence and complication data, can guide other nurses in addressing clinical questions as well as raise clinical implications for further study.

2381
A NEW TECHNIQUE FOR TREATING VOCAL CORD PARALYSIS: WHAT ONCOLOGY NURSES SHOULD KNOW. Rebecca Zeuren, RN, BSN, and Janine Kasparian, RN, BSN, Memorial Sloan-Kettering Cancer Center, New York, NY.

Vocal cords are critical for clear phonation, protection of the trachea from aspiration, and effective cough production. When a vocal cord is paralyzed it is unable to abduct and adduct and therefore creates a small gap. This may cause hoarseness, inability to communicate, shortness of breath, and aspiration. There are many known causes of vocal cord paralysis. The two most common are lung malignancy and surgically-induced injury. Vocal cord injection may alleviate these problems associated with paralysis. It is important for nurses to be aware of this treatment option for their patients.

This presentation will educate nurses about vocal cord paralysis and the vocal cord injection technique. The risks and benefits, procedure details, and nursing implications will be described.

After the patient’s throat is locally anesthetized, one physician inserts a fiberoptic scope for visualization of the vocal cords. A second physician palpatates external landmarks, preps the skin, and inserts a needle into the thyroarytenoid/ vocalis muscle. A human tissue or synthetic product is injected into the tissue pushing the vocal cord medially. The nurse observes the patient for adverse reactions and provides post-procedure instructions.

Vocal cord injections are generally effective for four to six months with a low risk of side effects. Improvement may be observed immediately, with progressive improvement over the next few days. It is minimally invasive, less costly than open surgical techniques, and can be especially effective in improving the quality of life for patients with advanced disease who are unable to undergo anesia.

Any oncology patient may be affected by vocal cord paralysis as a result of their disease or treatment. It is imperative for oncology nurses to be educated about this problem and the potential benefits of vocal cord injection. This will allow the practitioner to identify patients who may benefit from this procedure.

2384
THE USE OF CLINICAL NARRATIVES AS A DEVELOPMENTAL TOOL FOR GRADUATE NURSES. Mary Louise Kanaskie, RN, MS, RNC, AOCN®, Penn State Milton S. Hershey Medical Center, Hershey, PA.

Graduate nurses in oncology are faced with many challenges as they learn the role of professional nurse while working in a field that requires specialized knowledge and skill. Graduate nurse internships provide the structure for the acquisition of knowledge and basic skill competency.

The purpose of this project is to develop a framework for nurse managers and nurse educators utilizing the clinical narrative as a tool for evaluation and development of graduate nurses.

A clinical narrative is a nurse’s written statement of their nursing practice and can be effectively used to evaluate practice because it describes the practice within a context. According to Benner, graduate nurses function initially as “novices,” gaining knowledge and experience through each clinical experience. The clinical narrative provides a tool to dialogue with the graduate nurse about a clinical situation and to provide an opportunity for them to reflect on the situation from a new perspective. The narrative identifies important nursing interventions, makes visible the stages of knowledge development and enhances individualized learning plans. Graduate nurses in an internship program on an oncology unit were asked to write narratives at set intervals. Meetings with the clinical nurse educator and nurse manager were held to discuss their overall growth and development and progress with orientation outcomes. Utilizing the narrative, dialogue occurred which identified individual learning needs.

Graduate nurses evaluated the experience of writing and sharing their narratives as valuable, allowing them to reflect on their practice and to identify areas for growth. Managers and educators identified that the narrative made the nurse’s practice visible and enabled them to evaluate critical thinking skills and more effectively develop individualized learning plans.

The success of this project requires the ongoing education of nurses in leadership roles about the effective way to utilize the clinical narrative. Examples of clinical narratives will be shared highlighting the phrases and segments that are most revealing and how to construct questions and statements in the dialogue about them. The impact of this project is far reaching and can also be effectively utilized in the development of experienced RN staff.
side effects can lead to life-threatening infections, increase costs, and may reduce patients’ quality of life. National Oncology Alliance (NOA) offers peer-reviewed anemia and neutropenia guidelines consistent with nationally-recognized guidelines yet customized to office-based oncology practice.

Research shows that distribution of treatment guidelines alone is insufficient to change knowledge or clinical practice. An educational program targeted to health care providers (HCPs) to improve guideline adherence may improve adherence and lead to improved patient outcomes. The EDUCATE study (EDUcating Clinicians to Achieve Treatment guideline Effectiveness) is designed to evaluate whether an educational intervention program targeted to HCPs on adherence to anemia and neutropenia treatment guidelines improves guideline adherence in the community-based setting. The 12-month educational program, based on NOA’s anemia and neutropenia guidelines, is tailored to the office-based setting, where nurses have collaborative roles and can facilitate guideline adherence. Community-based oncology practices in five US regions were randomized to the intervention (education) or control (no education) group (2:1 ratio). A total of 1568 practices were approached for participation, 122 practices responded, 49 practices were ineligible and 26 practices declined participation. The unit of analysis in the study is the HCP; 82 HCPs in 47 randomized community-based practices were enrolled.

The same educational program was offered to all clinicians in the intervention sites (registered nurses, physician practitioners, physician assistants, pharmacists, licensed practical nurses). The educational program employs several learning formats to reinforce risk assessment for neutropenia and anemia, appropriate growth factor use and dosing and patient monitoring. The educational program introduces a new topic monthly and varies the presentation weekly to include one of the following: email case vignette with quiz, educational mailer with peer-reviewed article, educational giveaway, patient education resource and/or study newsletter.

Oncology nurse educators play a key role in education delivery, providing three educational in-service trainings and implementing customized standing orders for neutropenia risk assessment, anemia assessment and appropriate growth factor use. Comparison of education versus no education on guideline adherence and patient outcomes will be reported at study completion.

2389
ONCOLOGY PROFESSIONAL NURSING DEVELOPMENT COUNCIL. Katie Mullaly, MSN, RN, Patricia Eklund, RN, Maureen Hickey, RN, Margaret Kasper, APRN-BC, Sarah Mendez, RN, MA, Cheryl Lee, RN, MA, PCNP-C, and Frances Cartwright, PhD, RN, AOCN®, NYU Hospitals Center, New York, NY.

The oncology nursing profession is challenged to stay current with ongoing scientific advances. A system to address the various needs of nurses across the oncology service line, utilizing the diverse clinical and leadership expertise in an NCI designated academic clinical cancer center was identified.

An Oncology Professional Nursing Development Council was organized with membership from inpatient, infusion therapy, radiation oncology, home care, hospice, pain management, community, and education. Consistent with the ONS action plan for 2006, the aims of this council are: 1) identify the needs of nursing across the oncology service line, 2) implement evidence based educational programs, 3) increase utilization of expertise in a large academic university medical center, 4) develop and implement criteria for attending educational offerings.

1) An education needs assessment survey was distributed to all oncology service line nurses. The survey was composed of 50 items. Each item was rated by priority of need with 1 (least important) to 10 (most important). 2) Council members networked to identify program presenters. 3) Responses from the educational needs assessment survey and a literature review provided the data to organize ongoing CE approved programs for end of 2006 – 2007. 4) A binder that includes the newly developed oncology service line education calendar, ONS educational blueprint, and sites for online CE credits is updated quarterly and available across service lines.

The survey was completed by 30 oncology nurses. Highest priority needs among all sites include: evidence based practice projects, research, pain, oral chemotherapies, stress management, and gynecological cancers. The educational programs have been well attended and include adult and pediatric nurses from inpatient and ambulatory sites. The results revealed improved collaboration between oncology sites, as indicated by joint projects now being developed. To further the above stated aims and to address the education needs survey, a mentor subcommittee, consistent with ONS was recently developed.

The council has improved the system to promote a seamless, integrated process of evaluating nurse’s needs and implementing accessible education programs to elevate the oncology nursing profession as a whole.

2392
MONITORING PATIENTS THAT HAVE RECEIVED ALL-TRANS RETINOIC ACID (ATRA) TREATMENT DIAGNOSED WITH RETINOIC ACID SYNDROME. Lisa Privitere, RN, OCN®, and Merima Nokic, RN, Rosewell Park Cancer Institute, Buffalo, NY.

Current data has shown a distinct complex of symptoms that has been reported among patients receiving all-trans retinoic acid (ATRA) therapy for acute promyelocytic leukemia. Among patients with appropriate cytogenic profile, ATRA has demonstrated efficacy as an alternative to cytotoxic chemotherapy, by inducing the differentiation of malignant cells into phenotypically mature myeloid cells. ATRA has produced complete remission in a large proportion of patients treated reaching 90%.

With consistent use of ATRA and ongoing growth of patients on treatment- retinoic acid syndrome has been identified. The syndrome consists of fever, dyspnea, weight gain, pulmonary infiltrates, pleural or pericardial effusions, episodic hypotension, renal dysfunction and leukocytosis. Less likely but always associated with a higher mortality rate is pulmonary hemorrhage.

To reduce potential length of stay, mechanical ventilation, and other complications, preventing retinoic acid syndrome is critical to decreased mortality, improved quality of life and cost efficiency.

To improve our potential outcomes we identified the following interventions:

1) Implementing in-services on RA syndrome on direct care givers and patients (early side effects)
2) Monitoring closely input and output, vital signs, weights, shortness of breath, blood results (complete blood count, comprehensive metabolic panel)
3) Evaluating patient status closely, checking renal function, pulmonary infiltrates, including diagnostic such as X-ray, ECHO (ruling out possible cardiac tamponade)
4) Cessation of ATRA for moderate or severe retinoic acid syndrome
5) Rigorous exclusion of superimposed infection
6) Diuresing patient as tolerated by hemodynamic and renal status

Retinoic acid syndrome is associated with substantial morbidity and a reported mortality rate as high as nine percent.
However, the majority of patients have made a complete recovery if this syndrome is recognized and treated early and ATRA is withdrawn.

The Oncology nurse is able to manage a patient receiving ATRA if knowledgeable about potential complications. This syndrome is almost completely reversible if the nurse at the bedside is able to recognize, report clinical findings and understand the actions needed to prevent further harm. This presentation will provide the Oncology Nurse with the information to improve nursing care of patients receiving ATRA.

2394 MUCINOUS ADENOCARCINOMA OF THE APPENDIX PRESENTING AS AN OVARIAN MASS. Robin Cianos, RN, OCN®, Tricia Roesch, ACNP, and Jesus Esquivel, MD, FACS, Saint Agnes Hospital, Baltimore, MD.

Peritoneal surface malignancies of appendiceal origin are characterized by the rupture of a primary mucinous tumor with extravasation of tumor cells and large quantities of mucin throughout the abdominal cavity. The accumulation of this mucinous material at specific anatomic sites contributes to their clinical presentation. Deposits in a hernia sac will present as a new onset hernia, deposits in the omentum will present as increasing abdominal girth and in women, deposits in a ruptured ovarian follicle will contribute to the clinical presentation as an ovarian mass. Frequently, this ovarian mass is misdiagnosed and treated as an ovarian cancer with serial debulkings and intravenous chemotherapy. The current treatment for appendix cancer with peritoneal dissemination consists of cytoreductive surgery and hyperthermic intraperitoneal chemotherapy (HIPEC).

An analysis of clinical characteristics leading to their mode of presentation, treatment and outcome constitutes the basis of this study.

We conducted a retrospective review of all female patients undergoing cytoreductive surgery and HIPEC for appendix cancer from January 2005 to January 2006 at our institution.

Thirty female patients were identified. Mean age was 54 years. Nine patients (30%) had the diagnosis of an ovarian mass. All 9 patients were taken to the operating room elsewhere for an exploratory laparotomy and debulking. Chemotherapy regimens for ovarian cancer were given to two of the nine women prior to their definitive treatment with cytoreductive surgery and HIPEC. Average time between initial diagnosis and cytoreductive surgery was 34.3 months (2-120). Final pathologies at the time of their cytoreductive surgery showed low grade mucinous adenocarcinoma of appendiceal origin in 8 patients and high grade mucinous adenocarcinoma of appendiceal origin in 1 patient. So at a mean follow up of 12 months (2-22), all patients were alive, 5 with no evidence of disease and 4 with disease.

This chart review validates the need for health care professionals including nurses, medical and surgical oncologists to be aware of the association between appendix cancer and ovarian masses. This awareness is vital in order to provide appropriate surgical management in a timely manner to this group of patients.

2395 CREATIVE CARING—ENHANCING SURVIVORSHIP CARE THROUGH SHARING. Cindy Waddington, RN, MSN, AOCN®, Nancy Steward, RN, MSN, OCN®, CRNI, Mary Redman, RN, OCN®, Nancy Lambert, RN, MSN, OCN®, and Jeff Kendall, PsyD, Helen F. Graham Cancer Center, Newark, DE.

Cancer survivorship is a distinct phase of cancer care. During the transition from active treatment to post treatment, survivors often struggle with an emotional upheaval which may alter their views of themselves and the world. Story telling has shown to facilitate personal growth for both story tellers and listeners. Oncology nurses, adept at therapeutic communication, have had limited opportunities to become more familiar with the experience of cancer survivors and facilitate this personal growth. Nurses are now more frequently interacting with the 10 million cancer survivors in the United States.

A cancer survivor scrapbooking and story telling program was developed to facilitate the process of working through survivors’ perception of past and present events. It also provided an opportunity for oncology nurses to work closely with survivors.

Scrapbooking volunteers and Cancer Care Management (CCM) staff assisted participants in the creation of a story card using 5-6 personal photographs. Once completed, the participants shared their creation and personal story depicted on the card.

Survivors responded overwhelmingly that the program was a positive, inspirational experience, which provided enhanced learning about themselves. CCM staff reported the event was an exceptional experience in professional growth. CCM staff completed a five question evaluation scored on a nominal scale (strongly agree, agree, disagree, strongly disagree. All strongly agreed the program gave them inspiration about cancer survivorship. Eighty percent strongly agreed and 20% agreed the program a) was a positive experience, b) helped them learn about cancer survivors and their experiences, and c) gave insight that will help in caring for cancer survivors.

These results demonstrated the beneficial contributions a scrapbooking and story telling program has to offer survivors and staff. Based on these results, future directions include incorporating an outcome oriented story telling focus. This will include reflection and mindful identification of the meaning or value of photograph topics followed by a self assessment of the change in meaning or value since completing treatment. This program can be adapted for use by any patient/support person population with a chronic or life threatening illness.

2396 LIGHTS, CAMERA, ACTION! ENHANCING EDUCATION THROUGH VIDEO. Diedra Frantz, RN, BSN, OCN® and Josephine Visser, RN, BSN, OCN®, H. Lee Moffitt Cancer Center, Tampa, FL.

Beginning chemotherapy can be overwhelming for patients and families. Adequate knowledge empowers patients during this difficult time. Our Infusion Center, part of a large NCI Comprehensive Cancer Center, provides such treatment for more than 3900 patients annually. A process improvement project revealed that only 73% of our patients received detailed information about their chemotherapy treatment prior to their initial Infusion Center visits. Furthermore, just 52% could identify names of the agents they were to receive. Our existing process for educating our patients included written materials and verbal instructions. Recognizing that adults learn better when exposed to a variety of teaching strategies and hoping to improve our education process, we decided to add a video to our arsenal of tools.

Finding time to offer quality education can be challenging in a fast-paced, high-volume setting. The purpose of this abstract is to present a patient education strategy developed and utilized by our Infusion Center nurses to improve patient’s knowledge of their treatments.

Two nurses committed to improving the patient education process developed content for a chemotherapy video. The group worked with the audiovisual team to develop a product consistent with the written information provided to patients. The video contains general information about chemotherapy, potential side effects, and symp-
tom management strategies. Presently, the video is in DVD format and viewed in the Infusion Center upon the patient’s first treatment. After viewing the DVD, a nurse reviews specific information about prescribed agents and answers questions.

Including this teaching strategy allows our nurses to focus on specific side effects related to an individual’s chemotherapy regimen. Also, offering a video provides another avenue for learning that can be viewed repeatedly by the patient. Both patients and nurses have reported satisfaction utilizing this approach.

Our ultimate goal is to expand the video project to all of our outpatient clinics. Giving this information prior to the initial Infusion Center visit could further enhance the education process for our patients. Incorporating a video into initial chemotherapy education serves as a successful strategy to standardize the education provided as well as maximizes the effectiveness of time spent with the nurse.

2398
EXAMINING THE RELATIONSHIPS BETWEEN CLINICAL VARIABLES, QUALITY OF LIFE AND FATIGUE IN PATIENTS WITH MULTIPLE MYELOMA. Reanne Booker, RN, BScN, Tom Baker Cancer Center/Alberta Cancer Board, Calgary, Canada; Karin Olson, RN, PhD, Faculty of Nursing, University of Alberta, Edmonton, Canada; and Darlene Whyte, RN, BN, Tom Baker Cancer Center/Alberta Cancer Board, Calgary, Canada.

Fatigue is one of the most commonly reported symptoms in patients with cancer and is almost certain to occur at some point along the illness trajectory in patients with multiple myeloma (MM). Fatigue remains a multifaceted symptom. Although most research has focused on the role of anemia, there is growing evidence that other processes, such as inflammation, may contribute to the development of fatigue. A greater understanding of the pathophysiology of fatigue in multiple myeloma may provide important information about individual experience and lead to improved symptom management and quality of life in these individuals.

The purpose of this study was to begin an exploration of factors related to disease and treatment in MM that contribute to the development of fatigue in these individuals.

The objective of this study was:
1) To examine the relationships between clinical variables (hemoglobin, serum albumin, C-reactive protein), fatigue and quality of life in individuals with multiple myeloma.

There is increasing evidence to support a neuroimmunological role in the development of cancer related symptoms. For example, over/aberrant expression of proinflammatory cytokines has been identified as an essential component of tumor progression/proliferation. It is hypothesized that these same cytokines also contribute to the development of cancer related symptoms including lean tissue loss, poor performance status, fatigue and anemia.

Further evaluation of the pathology of fatigue may lead to greater understanding of how patients respond to therapy and contribute to the development of new approaches to fatigue management.

This study employed a descriptive exploratory design. Forty three participants were accrued. Instruments used to assess quality of life included the EORTC-QLQ-C30 and MY24 (a myeloma specific QOL module). Fatigue was assessed using the FACT-F. Data analysis included basic descriptive statistics, simple linear regression and multiple regression.

Preliminary data analysis reveals negative correlations between hemoglobin and CRP, albumin and CRP and QOL and CRP. This suggests a possible role for inflammation in the development of cancer related fatigue and QOL. These findings support the need for further research into the mechanisms underlying cancer related fatigue with the greater goal of improving symptom management and patient quality of life.

2400
THE “VIP PROGRAM OF HUNTERDON COUNTY”: AN EDUCATIONAL PROGRAM FOR WOMEN AGE 65 AND OLDER AIMED AT IMPROVING THE RATES OF ANNUAL SCREENING MAMMOGRAMS. Mary Vecchio, RN, MSN, ANP-C, OCN®, Jacqueline Allen, RN, MSN, CNS, AOCN®, Pamela Vlahakis, RN, Audrey Vitolins, LCSW, and Mary Riley, Hunterdon Medical Center Foundation, Flemington, AL; and Suzanne Hornbeck, Central and South Jersey Affiliate of the Susan G. Komen Breast Cancer Foundation, Lawrenceville, NJ.

In Hunterdon County, 46% of women on Medicare reported not having a screening mammogram during the past 12 months. Recommendations from the recent New Jersey Needs Assessment Report include “expanded outreach efforts for cancer education, screening, and treatment services in addition to forming partnerships with organizations capable of providing education on the importance of cancer prevention and screening”. Oncology nurses serve as a valuable resource to provide education to this target population.

The purpose of this program is to educate women on the increasing value of a screening mammogram as they get older and to identify barriers that may be prohibiting women from obtaining a screening mammogram. Incorporation of the aspects of the Health Belief Model supports the framework of this program.

This program will be introduced to organizations whose memberships reflect the target population. Surveys will be issued to attendees to identify barriers for obtaining mammograms. Individuals who have not obtained a mammogram in the past 12 months will be counseled on the procedure and locations to receive one. A pre-addressed postcard will be used to track screening completion. A peer support “ambassador” within the organization will assist the participant if necessary.

The goal of this program is to build upon the strong reputation of personalized care that is firmly established within the culture of the Hunterdon Regional Cancer Center. Measurable objectives include the establishment of community partnerships and increasing the number of women 65 and older who receive screening mammograms.

Designers of this program hope to identify barriers that an older woman must overcome in order to obtain a screening mammogram. Validation of the importance of this identification and targeted education may encourage nurses (as educators) to expand beyond breast health to improve population screening behaviors for other health conditions. A unique aspect of this program is the utilization of a peer support "ambassador" to assist the participants in following through with obtaining a mammogram once the educational program is completed. The results of the on-going survey may identify unknown barriers. The tracking system may provide data to mammography sites that may influence a change in organizational policy.

2401
CLINICAL RESEARCH NURSES CLIMBING TO NEW HEIGHTS: DEVELOPMENT OF AN ADVANCEMENT LADDER. Elizabeth Vaughn, RN, MS, OCN®, Sheila Ferrall, RN, MS, AOCN®, Catie Wiernasz, MSN, FNP, Luz Díez, RN, BSN, Christine Simonelli, RN, BS, OCN®, and Leticia Tetteh, RN, BSN, H. Lee Moffitt Cancer Center & Research Institute, Tampa, FL.

Clinical research nurses (CRN’s) possess comprehensive knowledge of disease processes as well as protocol requirements. Serving as liaisons between investigators, care providers, regulatory staff and sponsors, they coordinate all aspects of care related to the protocol. CRN’s at our institution, while faced with challenging roles, expressed frustration at their inability to grow professionally. Other
nurses are recognized for developing expertise in their specialties through Clinical Ladder advancement which was not available to CRN’s. Lack of opportunity for advancement, coupled with no formal means of recognition for the specialty of research nursing, contributed to the loss of highly-skilled research staff and difficulty attracting new nurses.

The literature estimates the cost of nurse turnover to be 0.75 to 2.0 times the departing nurse’s salary. The loss of CRN’s, even if they transfer within the institution, results in financial and productivity losses, requiring significant investment to orient new nurses.

The purpose of this project was to improve retention of CRN’s through development of a formalized program for advancement.

With support of research management, a team of CRN’s met to discuss and formulate the necessary elements of the proposed ladder. Two CRN’s became members of the existing Clinical Ladder Committee and presented the proposal. Research management collaborated with Human Resources to evaluate, redefine, and update the Research Nursing Job descriptions, expanding CRN roles from one to five to mirror the Clinical Ladder. Finally, research management worked with the compensation department to place each CRN into the appropriate new level and address pay equity.

The CRN component was integrated into the existing Clinical Ladder Program in May 2006. All CRN’s received salary adjustments commensurate to their experience. Approximately 20% of CRN’s have advanced since integration and others are making application. Our recruiter discusses this exciting prospect with potential candidates. Experienced CRN’s report feeling “re-energized” and “inspired” by the opportunity this provides.

This process serves to recognize and reward CRN’s who demonstrate excellence in nursing practice, leadership, and achievement in the clinical research oncology setting through promotion and salary advancement. We anticipate turnover statistics to demonstrate improved retention among CRN’s with implementation of this exciting program.

2402 DEVELOPMENT OF A NURSING ALGORITHM FOR PALLIATIVE SEDATION USING EVIDENCE BASED PRACTICE. Patricia Ewert-Flannagan, MSN, BA, ARNP, BC, CNS, and Julieta Fajardo, RN, BSN, University of Texas M.D. Anderson Cancer Center, Houston, TX.

Palliative sedation is an effective symptom control strategy for patients who suffer from intractable symptoms at the end of life. Studies focusing on nursing care during palliative sedation are limited. In order to minimize practice variation in palliative sedation within the palliative care unit, a nursing algorithm was developed using evidence based practice principles.

The aim of this project was to verify a clinically useful tool to assess the level of consciousness and agitation in patients. The tool could assist in the determination of sedation therapy, improve communication among healthcare providers and provide nursing autonomy in medication titration as the patient’s sedation level needs change.

Using available evidence from literature, The Richmond Agitation Sedation Scale (RASS) which has a positive to negative numerical scale was assessed for applicability for development of the nursing algorithm. A literature search was conducted to attain information on which populations were valid and specific to the RASS. Literature synthesis revealed the populations were similar to palliative patients prior to starting sedation. To improve documentation of assessment and medication titration a palliative sedation flow sheet was created and piloted on the unit.

The proposed algorithm was presented to the institutions Evidence Based Registered Nurse Program. The Algorithm was presented at a unit interdisciplinary meeting and was reviewed by the medical director. Feedback from the Physicians and nurses helped develop the final algorithm. The process of developing this algorithm and outcomes will be presented at the ONS Congress.

Developing best practice in palliative sedation also built a common bond and language between physicians and nurses regarding the practice of palliative sedation.

2405 THE SOCIAL COGNITIVE TRANSITION MODEL (SCTM): A FRAMEWORK FOR UNDERSTANDING THE RELATIONSHIP OF LOCUS OF CONTROL, DISPOSITIONAL OPTIMISM, AND MEANING IN LIFE TO SPIRITUAL/RELIGIOUS OUTCOMES. Judy Schreiber, RN, MSN, University of Kentucky, Lexington, KY.

Many theories and models have attempted to explain the mechanisms of psychological adjustment to stress. Brennan has proposed a new model, the SCTM integrating the Stress and Coping Model (SCM) by Lazarus and Folkman and the Social Cognitive Theory (SCT) to comprehensively explain psychological adjustment within an individual’s worldview. The SCTM has been developed to incorporate the concepts of the reciprocal interaction of the person with their environment, the psychosocial determinants of behavior, and coping behavior as proposed by the SCT and the SCM.

The 2005 ONS Research Agenda focuses on psychosocial and behavioral issues of the individual and family during treatment and survivorship. The purpose of the proposed study is to examine the directionality of the relationships of locus of control, dispositional optimism, meaning in life, and spiritual/religious outcomes within the SCTM framework. Understanding this directionality may well present the means to develop useful, tailored educational materials and interventions that work within general categories of cognitive maps. Materials presented in a format compatible with a particular cognitive map category would theoretically be more effective as it would fit with correspond with core assumptions. The appraisal of the experience or event as confirming or disconfirming the individual’s expectations and the resultant strengthening or adjusting of assumptions may prove to be a stronger influence on adjustment than the particular coping style employed.

The concepts of locus of control and dispositional optimism both include the idea of expectation, the primary premise of the SCTM. Assisting someone to adjust to new circumstances is grounded in understanding key factors that influence the development of assumptions that form their mental model of the world. Fundamental beliefs that underlie core assumptions are often influenced by personality traits that form the lens through which one views the world. Attribution of power to internal or external sources that influence life events or behaviors is a strong basis for assumptions and expectations. Therefore, locus of control is posited as the primary causal factor in spiritual/religious outcomes. Dispositional optimism and meaning in life have been correlated with locus of control but rarely is examined as a mediator or moderator in the relationship.
in 2005 there were 10,370 new cases of cervical cancer diagnosed in the United States and 3,710 women died from the disease. Vaccines for this disease are now available. The distribution and administration of this vaccine before sexual activity occurs will prevent thousands of infections and deaths. All health care providers, policy makers, the public, patients, and the press should be involved in the dissemination of this information.

The goal of this program was to educate the staff of a hospital responsible for the education and care of children and their parents in an effort to raise awareness and discussion of the HPV vaccine and its implications. Location: Patient Care Services Education Grand Rounds - Children’s Hospital, Columbus, Ohio.

The use of Grand Rounds for this program was initiated by the Director of Patient Care Services Education. The audience consisted of health care providers for various disciplines. The presentation team consisted of four members of the National Black Nurses Association and six members of the Oncology Nursing Society. Three members of the team serve with both organizations.

Following a powerpoint presentation a written evaluation was provided to the participants. The three objectives identified were described as met by all participants completing the form. Participants were able to discuss signs, symptoms, risk factors for cervical cancer; identify role of HPV in cervical cancer and to identify available vaccines. An important question on the evaluation asked whether the educational activity influenced your attitude - all participants gave an affirmative answer. Supportive literature was provided by Merck and Company, Inc., the American Cancer Society, ETR Associates and the National Cancer Institute.

This program resulted in increased knowledge on the part of the oncology nurses presenting the program as they learned the protocol for vaccine use at the hospital. The hospital staff received valuable information regarding provision of medical care and vaccination for uninsured along with available resources. This program would be applicable as a professional presentation to any audience involved in the health of children as well as cancer prevention.

2408
PSYCHOLOGICAL SYMPTOMS IN WOMEN WITH BREAST CANCER.
Nicole Vaughan-Adams, RN, MSN, OCN®, M.D. Anderson Cancer Center, Houston, TX.

Breast cancer is the most frequently diagnosed cancer in women and remains the 2nd leading cause of death among women. The diagnosis of breast cancer can lead to significant emotional distress, which may develop into or exacerbate symptoms of depression and other mood disorders. Significant distress can impact an individual’s decision to seek medical treatment and follow through various treatment modalities. Literature identifies risk factors to the development of anxiety and depression after receiving the diagnosis of breast cancer.

The purpose is to examine the relationship of breast cancer, psychological symptoms and age.

The grounded theory was used to compare data and to find if a significant relationship existed.

The study analyzed data retrieved from the 2003 National Health Interview Survey Adult Dataset. Women who responded, “yes” to “have you ever been told you have cancer?” n=1313, were compared to individuals who mentioned, “breast cancer” as the kind of cancer, n=408. Psychological symptoms were the measurement of feelings experienced over 30 days. These feelings were sadness, restlessness, hopelessness, worthlessness, fatigue, and presence of feelings that interfered with life. Two age groups were defined, 18–49 and 50–85.

Statistical analysis utilized the Mann-Whitney U test to identify the significant differences between individuals with breast cancer and between age groups.

Women with breast cancer experienced a significant amount of restlessness, worthlessness, fatigue, sadness, hopelessness, and nervousness (p<.05). A significant difference exists when comparing younger and older women. Younger women experience significant amounts of hopelessness, worthlessness, nervousness, and restlessness (p<.05). Women with breast cancer experience symptoms that serve as risk factors for developing depression and anxiety. The analysis determined a greater difference between breast cancer, restlessness, worthlessness, and fatigue when compared to all cancers. The results are supported by the literature. Younger women tend to experience more nervousness, hopelessness, and worthlessness. This finding is significant, although limited by the number of younger women interviewed in the survey (ages 18 -49, n=41, ages 50 – 85, n=367). Further research including a larger sample size of women over age 50 is needed to discuss the relationship of age and psychological symptoms.

2410
ENHANCING PATIENT ASSESSMENT, CARE AND DOCUMENTATION THROUGH TECHNOLOGY. Alexandra Stolfi, RN, MBA, OCN®, Advanced Medical Specialties, Miami, FL; Greta Dudley, RN, OCN®, Central Georgia Cancer Care, PC, Macon, GA; and Kelley Moore, RN, and Gina Johnson, MSN, ARNP, BC, Supportive Oncology Services, Inc., Memphis, TN.

There is a national effort in both the private and public sectors to define quality cancer care. In addition, medical care continues to be impacted by advances in technology. Nurses need to stay abreast in these areas as the implications derived from defining quality care and any technology implemented will inevitably impact the nursing role.

The purpose of this abstract is three-fold. First, key elements of quality patient care in oncology will be defined. Second, the needs and challenges that community oncology practices face in attempting to deliver efficient quality care will be discussed and specific examples from our clinical experience will be shared. Lastly, an example of technology solution used in clinical practice to deliver optimal, efficient, well-documented care and education will be provided.

We will describe the key elements that encompass quality care and outcomes for oncology patients, with a particular focus on needs and challenges in oncology practice to achieve these outcomes. Special attention will be paid to assessment and education of patients, the need for documentation, pertinent clinical data, practice efficiency and how technology solutions may contribute to achieving these goals. Patient-reported symptom assessment and the exchange of information from patient to nurse and provider will be highlighted. A revolutionary technology system currently being utilized in clinical practice to address these components will be described and discussed in detail. Enhanced nursing strategies for use of technology to achieve optimal patient outcomes and education with supporting documentation will be discussed.

Nurses are better able to identify and attend to symptom management with the use of a technology based patient self-assessment tool. In addition, technology may make educational interventions and appropriate management decisions more efficient and effective.

Nurses need to be aware that the implications for defining quality care will affect them. Nurses need to actively participate in defining the quality care concept and their role in it. As clinicians, nurses will likely be end-users of clinical technologies and can use them to improve practice efficiency and strive toward better patient outcomes.

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A DESCRIPTION OF NAUSEA AND VOMITING DURING THE PERI-HEMATOPOIETIC TRANSPLANT PERIOD USING A RESEARCH ASSESSMENT TOOL MODIFIED FOR CLINICAL USE. Tracy Douglas, MSN, RN, OCN®, Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins, Baltimore, MD.

Patients undergoing hematopoietic stem cell transplant (HSCT) have acute and delayed chemotherapy induced nausea and vomiting; nausea and vomiting related to other medications, graft versus host disease, and infections throughout the peri-HSCT period. Healthcare providers underestimate nausea and vomiting and even low amounts are associated with a decreased quality of life in patients with cancer. The amount of emesis can be documented however that does not account for nausea and distress from these symptoms. Over the last five years nausea and vomiting at our comprehensive cancer center has been accessed using a research tool called, “The Index of Nausea and Vomiting, and Retching” (INV-2) scale developed in 1999 by Verna Rhodes. The category of retching was removed from the tool, leaving a 16 point maximum scale; accessing nausea, vomiting, and a patient’s distress to both of these symptoms on a zero to four, scale. We have used this scale clinically to determine the need for a change in clinical management if the patient has a score of four or greater.

The purpose of this project is to analyze quantifiable and objective nursing assessment data from a modified INV-2 scale. The modified INV-2 score data was mined for daily scores from 13 patients undergoing allogeneic HSCT.

Nurses had better than 80% compliance using this tool CINV is controlled, with 0 percent of patients with an INV-2 > 4. However, from the day of transplant to day 22, 30%-70% of patients had an INV-2 score > 4. The data show that nausea and vomiting related to the delayed effects of chemotherapy, other medications, infections and unknown factors remain a large problem in the peri-HSCT period.

One obstacle to conducting performance improvement or research in a clinical area is obtaining of consistent and quantifiable data. The modified INV-2 has been used for five years with good compliance. Our experiences with this scale will help us better understand nausea and vomiting in our population, improve clinical care and partner with medical and pharmacy colleagues for performance improvement or potentially research.

IMPLEMENTING RELATIONSHIP-BASED CARE IN A COMPREHENSIVE CANCER CENTER. JoAnn Maklebust, MSN, APRN-BC, AOCN®, FAAN, and Susanne Suchy, MSN, RN, AOCNS, Karmanos Cancer Center, Detroit, MI.

In 2005, a Comprehensive Cancer Center’s Chief Nursing Officer charged the Oncology Nurse Practice Committee with identifying a nursing care delivery model. After leadership members attended a conference on Nursing Care Delivery Models, they were inspired to deliver professional nursing care. In a presentation to nursing leadership conference attendees suggested that Relationship-Based Care (RBC) be adopted.

RBC promotes organizational health resulting in positive outcomes in all critical arenas that measure success. RBC is comprised of three critical relationships: the care provider’s relationship with patients and families, self and colleagues. When compassion and care are conveyed through touch, a kind act, through competent clinical interventions, through listening and seeking to understand the other’s experience, a healing relationship is created. This is the heart of RBC.

The focus of the 2006 nurse practice retreat was RBC. Each nursing unit was asked to create a team of registered nurses (RNs) representing all three shifts. Each team was assigned a chapter from Relationship-Based Care: A Model for Transforming Practice. The teams read, discussed and developed a power point presentation highlighting major themes. They chose moments of excellence from the end of their chapter to engage the audience.

Nursing staff job descriptions were re-written to reflect caring behaviors. Whiteboards were placed at the bedside with the day’s assigned RN and support staff listed. Nurses sat with patients to establish mutual patient daily goals which were recorded on the whiteboards. Shift report was redesigned to include communication of patient’s goals and patient preferences. Posters depicting major concepts of RBC were illustrated with photographs of the nursing staff. Formal continuing education presentations of the RBC concepts were given weekly for staff development.

Evidence of success to date is reflected by: mutual patient goals on the whiteboards, nursing rounds with patient interviews, nurses sitting with patients at the bedside after shift report, shift report focused on nursing rather than medical care only, and improved satisfaction with nursing care according to Press Ganey scores.

Future implementation of RBC will include Primary Nursing. Implementing a nursing care delivery model with a change in institutional culture requires energy and time.
Multiple blood products are transfused on a daily basis in inpatient and outpatient areas of the hospital. Nurses expressed concern with incomplete or difficult transfusions by gravity administration which resulted in increased nursing time and expense as well as decreased anecdotal patient satisfaction with long stays in the outpatient areas to complete transfusions.

The goal of nursing staff was to change practice to decrease or eliminate these problems by changing the administration of blood products from gravity drip to transfusion by infusion pump.

A literature review indicated very little current research with most studies completed in the 1980’s. Results of the studies found no clinically significant effects on blood cells when transfused by infusion pump. The advantages of infusion pump transfusions cited in the literature were controlled flow and decreased product waste. The current vendor for the infusion pumps utilized in the institution provided research results that supported the use of the pumps. New tubing was the only equipment requirement to implementing the change. Benchmarking with similar institutions revealed both methods of transfusion were utilized. Approval for practice change was sought and received from three major practice committees. Once new tubing was obtained the change could be implemented; however, the tubing cost two dollars more than current tubing used, translating to a large increase in cost for the health system. Approval for such an increase was required from another committee, but was not granted as the evidence provided did not support the cost increase.

The focus of the study needed to change to why pumps should be used. New data was collected over the ensuing three months which examined costs related to missed or incomplete transfusions and nursing time invested in difficult transfusions. The cost, over $60,000 supported the change which resulted in anecdotal increases in patient and staff satisfaction and no further indication of incomplete or wasted transfusions.

All impacts of practice change need to be evaluated in the process of gaining evidence so that glitches to implementing change do not occur.

2420

BABY BOOMERS AND GENERATION X: NURSING EDUCATION BEYOND THE COMPUTER. Regina Smith, RN, BSN, and Betty Hunter, RN, MA, BSN, OCN®, M.D. Anderson Cancer Center, Houston, TX.

The emerging nursing workforce has different values, learning styles, and anticipated outcomes. Technology has moved us to mandatory coexistence. This will challenge current teaching strategies and their effectiveness. Designated curriculum committees are being utilized to formally integrate lectures and computer based training.

Recent educational studies have examined the learning styles of the Baby Boomer versus Generation X age groups within clinical nursing. During nursing orientation all new nurses are trained through didactic lectures and computer based training. Baby Boomers have a love-hate relationship with technology and generally do what they are told. Generation X grew up with computers and view technology as a time saving tool.

The aim is to compare the effectiveness of re-training staff with limited computer skills and staff accustomed to didactic lectures. This process was evaluated by computer on an ongoing basis.

During a six month evaluation, learning styles between the two generations, effective teaching and learning strategies were introduced through technology based education. Feedback was received from the new orientee through an online survey tool. The computer provided a step by step procedure and self paced program.

Lecture styles are primarily power point and individual speakers. This allows for personal interaction—many need more than someone reading a particular slide presentation.

To measure the overall effectiveness of the program, we offered online evaluations in order to provide feedback. Evaluation the responses based on different generation, learning styles and prior computer training. Additional training and ongoing teaching strategies will require additional staff with technology backgrounds.

In conclusion we noted a need to continue a combination of the two lecture styles, while further evaluation of generational difference will need to be evaluated. This development and effectiveness of teaching alone does not integrated computer technology as the primary teaching source.

Further advancement in technology will cause curriculums to increase collaboration, critical thinking and problem solving through the use of the computer.

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DASHBOARDS: A TOOL TO DEMONSTRATE THE IMPACT OF THE ADVANCED PRACTICE NURSE IN THE HOSPITAL SETTING. Elaine Griffin, MSc(A), RN, AOCN®, Suzanne Staeble, RN, MSN, RNC, NNP, Karen Muery, RN, MSN, CNS, Phyllis McCorstin, RN, MSN, CCRN, CNS, and Linda Harrington, PhD, RN, CNS, CPHQ, Presbyterian Hospital of Plano, Plano, TX.

The contributions of the advanced practice nurse (APN) to an institution are often an enigma to administrators and others. “What’s a CNS/APN do?” is a common question, and the inability to answer this in terms of institutional value leads the APN to be saddled with low-value tasks such as mandatory training. Dashboards are one tool to address this question. An administrative metric used to track financial and quality performance, dashboards can be adapted to present the strategies and outcomes achieved by the APN. It is an invaluable tool to demonstrate the APN’s value to an institution.

The APN role increases in value when their responsibilities contribute to departmental and institutional strategic goals. Articulating these contributions is easiest when tied to measurable outcomes. This abstract demonstrates how dashboards can be used to identify measurable results and present them to others so that the impact of APN practice can be demonstrated.

The APN should first identify the strategic goals of the institution, service, and department. APN tasks, projects, and processes are identified and linked to the strategic goals they support. Measurable outcomes can be derived from the desired goals of specific processes. For example, the success of an education program designed to reduce infection risk in neutropenic patients is measured in terms of hospital admissions for infection. Whenever possible, data is obtained from existing sources. Timeframes for reporting data should be realistic and reflect the data collection process.

We have found that dashboards have helped us to identify nursing-sensitive outcomes impacted by APN practice. This in turn has helped us to articulate exactly how our APN roles support the strategic goals of the institution. Response from administrators has been very positive. There is evidence that our dashboards have helped some of us to gain support for re-prioritizing time and resources to support clinical projects. Access to data has improved over time as we have demonstrated its utility in supporting strategic goals.

Dashboards provide a means for APNs to organize and articulate their practice and how it links to nursing-sensitive outcomes and institutional goals. This in turn helps to gain and maintain administrative support for APNs as valued members of the institution.
2426

MAKING CHANGES: MEETING KNOWLEDGE AND COMPETENCY NEEDS OF PEDIATRIC NURSES. Ellen Carroll, BSN, RN, and Myra Woolery, MN, RN, CPON®, National Institutes of Health, Bethesda, MD.

The integration of nurses with a variety of expertise from two separate inpatient units into a combined 25 bed pediatric unit poses many challenges and can be anxiety provoking for some staff. One pediatric unit specialized in the care of hematologic/oncology/transplant patients as well as patients with a variety of immune deficiencies; while the second unit cared mainly for patients with chronic pediatric conditions/diseases (i.e. endocrine, neurological, and genetic).

Assessment of knowledge related to disease processes and treatment, critical thinking skills, and competencies need to be part of the initial planning phase.

The purpose of this project was to develop a plan for the transition to a new combined unit and an ongoing evaluation of the integration. A carefully constructed educational program that includes didactic learning, skill validation through return demonstration, and clinical experiences, assists in building new skills and confidence.

An initial educational program developed by the nurse manager, CNS, and senior staff included: in-house educational programs (i.e. oncology and endocrine courses), in-services highlighting disease process/treatments; review of existing and new protocols; and cross training which was accomplished by pairing staff from both units.

After initial training, staff demonstrated basic knowledge. Over time competency proficiency has increased. A framework for an annual validation program was developed which included didactic assessment, skill demonstration, and critical thinking evaluation using disease-specific case scenarios. Ongoing annual assessments have revealed increase familiarity with the diverse population and treatment protocols. Staff verbalized less anxiety when caring for a previously unfamiliar population.

During the integration phase, it is critical to ensure adequate staffing be maintained to continue ongoing training necessary for a successful transition. Consideration of staffing patterns should include an assessment of skill mix as staff increase their comfort level with the diverse population and proficiency with new competencies. Ongoing assessments provide a mechanism for determining additional educational and clinical experiences needed to keep staff current with the needs of the various populations. One of the many challenges is maintaining competencies in low frequency and high risk activities. The plan developed for the transition has been incorporated into our orientation program and annual revalidation program.

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EDUCATION AND COLLABORATION: IMPLEMENTATION OF A THORACIC ONCOLOGY SPECIALTY MEETING. Denise O'Rourke, RN, OCN®, Kim Ayrhart, RN, Tania Cabellero-Pravia, RN, BSN, John Gannon, RN, BSN, Grace Marshall, RN, OCN®, and Rita DiBlase, MSN, APRN-BC, AOCNS, Karmanos Cancer Center, Detroit, MI.

The thoracic specialty meeting proves to be a valuable source of new information and education for nursing staff. This presentation will outline the process utilized in the development of a monthly specialty meeting. This model can be used by all oncology nurses working in clinical practice.

2431

SHARING THE JOURNEY OF THE BMT PATIENT WITH ONCOLOGY NURSES. Melissa Dufresne, RN, OCN®, Kim Ayhrnt, RN, Tania Cabellero-Pravia, RN, BSN, John Gannon, RN, BSN, Grace Marshall, RN, OCN®, and Rita DiBlase, MSN, APRN-BC, AOCNS, Karmanos Cancer Center, Detroit, MI.

Patients undergoing bone marrow transplant (BMT) require complex and skilled nursing care. BMT nurse preceptors are committed to educating new nurses and can also bestow their wealth of knowledge upon their colleagues by providing educational sessions. A comprehensive view of the many challenges that a BMT patient faces can give oncology nurses an understanding of the physical, emotional and psychosocial needs of patients and families.

BMT nurse preceptors were asked to provide a presentation detailing elements of the transplant process. It was identified that oncology nurses weren't always aware of the full extent of patient's experience prior to entering their unit or area. In addition, the inpatient and outpatient arenas seemed disconnected. BMT nurse preceptors planned a formal presentation using the concept of virtual patient scenarios.

BMT nurse preceptors from sister units and the BMT Clinical Nurse Specialist created a PowerPoint presentation titled “The Journey of a BMT Patient: Sailing in Uncharted Waters”. Entry into the cancer hospital was the initial focus with photographs showing members of the BMT team. Detailed timelines, scheduled appointments, tests, psychological and psychosocial evaluation were communicated. Topics discussed were: autologous transplant; allogeneic transplant; matched unrelated donor transplant; pheresis procedures for each type of recipient; storage of cells; chemotherapy preparative regimens; role of the BMT nurse; complications; length of stay; discharge procedure; and clinic follow up. BMT nurse preceptors emphasized the impact on patients and families/caregivers, along with collaboration and camaraderie while enhancing professional development.

A need for a monthly specialty meeting was identified and has been organized by an outpatient office practice nurse. The responsibilities to organize these meetings included reserving meeting space and time, topic selection and identification of a presenter. A needs assessment was distributed to the nursing staff to elicit information such as topics of interest and best available dates and times. Examples of some topics presented include: “Understanding the Pathology of Lung Cancer”, “Bevacizumab: A New treatment Option for Non Small Cell Lung Cancer”, Care of the Patient who Undergo a Video Assisted Thoracotomy”, and “MSKCC Survivorship Program Implementation”.

The monthly specialty meeting began in January 2005. Feedback from nurses revealed positive results in terms of educational content. However, frequency of a monthly meeting is challenging for nurses due to other competing meetings. Based on this feedback, the frequency of the meetings will be decreased in 2007. In addition, new methods of sharing information are being explored. Some examples include distributing educational content via e-mail and intermittently using fifteen minutes of staff meetings to deliver information. Another option includes conducting a journal club several times per year to critique and discuss relevant information related to the care of the lung cancer patient.

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clinical components, providing nurses with a comprehensive view of what this patient population faces.

In response to positive feedback from the oncology preceptors, educational sessions were provided for all oncology nurses within the hospital. The BMT nurses received high scores and praise from their peers and other cancer hospital personnel.

Oncology nurses can gain a wealth of knowledge from one other. Following the journey of a specific patient population provides a realistic and human concept of the experience. Oncology nurses see what their colleagues experience every day. Preceptors use their educator roles not only to teach orientees, but also to expand colleagues’ knowledge.

### 2432

**NURSING OPPORTUNITIES FOR IMPROVING PREVENTION OF CHEMOTHERAPY-INDUCED NAUSEA AND VOMITING (CINV) THROUGH EVIDENCE-BASED PROPHYLAXIS: EVALUATION OF PROVIDER PERCEPTIONS AND PARTICIPANT OUTCOMES.** Sandra Purl, RN, MS, AOCN®, Oncology Specialists, S.C., Park Ridge, IL; J.J. Stark, BS, CRC, and Petra Ketterl, MD, Cancer Treatment Centers of America, Tulsa, OK; and Amber Claussen, RN, OCN®, Hematology Medical Oncology Consultants, Davenport, IA.

Despite effective treatment options for CINV and the publication of evidence-based practice (EBP) antiemetic guidelines, CINV continues to negatively impact the lives of patients undergoing moderately emetogenic chemotherapy (MEC). Research indicates that prevention of CINV in the first chemotherapy cycle significantly reduces the risk of CINV in future cycles. Nurses have the opportunity to improve patient outcomes through better understanding and use of EBP options for prevention and treatment of CINV.

**Purpose:** to assess antiemetic practice patterns and identify nursing opportunities for improving antiemetic care and outcomes. Between October 2005 and July 2006 oncologists and oncology nurses completed surveys to document antiemetic regimens prescribed with common MEC treatments, and estimated incidence rates of acute and delayed CINV. Nurses recorded emetic risk factors, cancer diagnosis, chemotherapy and prescribed antiemetics for each participant. Participants completed daily diaries for five days post-treatment to record episodes of nausea and/or vomiting, use of antiemetic rescue medication, functional impact and calls or visits to the provider/practice due to CINV.

Although almost 80% of participants received guideline-based prophylaxis (5-HT₃ + dexamethasone ± other), there was significant variability in the approach to antiemetic treatment combinations, including antiemetic care inconsistent with EBP. The actual incidence rates of nausea and vomiting were notably higher than the rates estimated by both oncologists and nurses, particularly delayed nausea. Although 65% of participants experienced no emesis without using rescue antiemetics, 60% experienced nausea, and 33% reported functional interference due to nausea. Of the 16% of participants who missed work or a social commitment due to nausea or vomiting, just one-fourth called or visited their practice to seek help.

Understanding and use of EBP prior to chemotherapy and throughout the delayed period, as well as teaching patients about options to alleviate CINV, remain educational opportunities for oncology nurses. The small number of patients who called or returned to their practice for poorly controlled CINV compared to the number who experienced significant delayed nausea suggests a possible need for creative approaches for patient follow-up beyond the acute period to improve patient outcomes and quality of life.

### 2433

**PREVENTION OF HEMORRHAGIC CYSTITIS: THE EVIDENCE SAYS WHAT?!** Terry Sylvanus, MSN, APRN, BC, AOCN®, H. Lee Moffitt Cancer Center and Research Institute, Tampa, FL.

Hemorrhagic cystitis is a recognized toxicity of high-dose cyclophosphamide administration, which historically occurred in 40-70% of patients who received it without prophylaxis during conditioning for hematopoietic stem cell transplant (HSCT). Three disparate therapies are currently used to protect against this significant complication: hyperhydration with forced diuresis, continuous bladder irrigation, and administration of mesna, depending on transplant center and physician preferences.

This review was designed to determine what evidence exists to support the use of each of three therapeutic interventions designed to prevent hemorrhagic cystitis in HSCT patients receiving high-dose Cyclophosphamide. An algorithm will be designed to guide the practitioner in the selection of an appropriate preventive strategy, based on patient variables, as well as therapeutic benefits and risks.

An expert oncology nurse reviewed published guidelines, reviews and studies from 1986-2006 located through PubMed using evidence based practice filters, and through CINAHL using relevant search terms. Selection criteria for inclusion in the review was limited to randomized, prospective, controlled trials of the efficacy of hyperhydration, CBI or mesna in the prevention of hemorrhagic cystitis in HSCT patients.

Available national nursing and medical guidelines, pertinent studies and reviews were summarized into an evidence table format, and a clinical algorithm was developed. The importance of evaluation and consideration of patient variables and preferences in the development of evidence-based practice guidelines was highlighted.

No studies reviewed provided sufficient evidence as to the clear superiority of any one of the three therapeutic strategies in prevention of hemorrhagic cystitis; rather, each intervention is appropriate in defined clinical circumstances. Use of the developed clinical algorithm would encourage standardization of transplant protocols regardless of institutional and practitioner preferences. There is also a very real need for well-designed, randomized, controlled, interdisciplinary research to address this issue in this population.

### 2437

**INCREASING HAND HYGIENE COMPLIANCE REQUIRES CULTURE CHANGE.** Michelle Treon, MSN, RN, OCN®, and Kristen Kelley, MPH, Clarian Health Partners, Indianapolis, IN; Patricia Kneebone, BSN, RN, OCN®, Indiana University School of Medicine, Indianapolis, IN; and Regina Miles, BSN, RN, OCN®, Clarian Health Partners, Indianapolis, IN.

An estimated 90,000 deaths occur yearly from hospital-acquired infections. Transmission of pathogens often occurs via contaminated hands. Hand hygiene is a simple and effective intervention to reduce the spread of infection. Despite this common knowledge, providers disregard this intervention. Compliance by providers with recommended hand hygiene procedures has remained unacceptable. One type of hospital-acquired infection is a central venous catheter (CVC) infection. Reduction by 90% would save 225,000 patients from experiencing this complication, and $5.63 billion dollars saved nationally.

To design an innovative educational intervention to increase awareness of infection control practices, and increase hand hygiene compliance. Interventions targeted multidisciplinary providers on the adult Hematology/Oncology unit. The project was lead by the Clinical Nurse Specialist, Infection Control Practitioner, and Outcome Specialist with participation from the unit staff and Unit Manager.
A Likert survey was created for staff to determine degree of compliance aligning with knowledge of infection control. Survey questions were written to elicit honest answers and evoke a self-assessment. Second, an interactive hand culturing experiment occurred. Anonymous volunteers performed hand hygiene, touched common unit surfaces, and placed their hands on blood agar plates. Photographs of the cultures and organism identification were captured. Next, a Glow-germ experiment was completed to visually evaluate the cleanliness of provider’s hands. Commonly missed areas included fingernails, around rings, and wrists. Finally, a poster was created for the hospital’s nurses’ week activities. The poster contained facts, pictures of correct and incorrect infection control practices, pictures and results of the hand culture experiment, and information on organization infection control policies. The poster was also displayed on the Heme/Onc unit and with a poster post-test.

Hand hygiene observation audits completed by the hospital’s infection control practitioners revealed an increase in compliance, with rates starting at 35% and ending at 95%. Concurrently noted was a decreasing incidence of CVC infections, and an overall descending trend since January 2004.

Although the project overlapped with organizational education, the rate of compliance on this unit significantly out-paced other clinical areas. Before a culture change can occur, creativity and innovation are crucial for reaching success.

2438
A PERFORMANCE REVIEW PROJECT COMPARING TWO TRANSPARENT DRESSINGS IN RELATION TO CATHETER RELATED BLOOD STREAM INFECTIONS IN A HEMATOLOGIC MALIGNANCY AND BONE MARROW TRANSPLANT IN AND OUTPATIENT PROGRAM. Tracy Douglas, RN, MSN, OCN®, Amy Hatfield, PharmD, Anita Reedy, MSN, RN, Sacha Simmons, BSN, RN, and Saundra Johnson, MS, RN, Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins, Baltimore, MD.

Catheter-related bloodstream infection (CRBSI) is commonly associated with serious complications resulting in considerable morbidity and mortality. Most studies of catheter related infections have taken place in intensive care units. Many CRBSI come from contamination of the catheter from the surrounding skin. The Center for Disease Control recommends catheter exit sites be kept dry and covered with transparent dressings that are changed every seven days or when wet or soiled. In 2002, the intensive care units at our institution examined a new transparent dressing and the hospital changed to this dressing. The oncology staff expressed concern about an increase in CRBSI’s; however, it was not evident in the inpatient infection control surveillance data which tracks patients who have been hospitalized for greater than 48 hours.

We wanted to evaluate the amount and types of oncology CRBSI’s in both the inpatient and outpatient setting. We examined infection rates in both settings with two different dressing products.

During a two-month period inpatient and outpatient hematologic malignancy and bone marrow transplant patients with tunneled catheters using Sorbaview® dressings were monitored for bacteremia. The following 2 months we changed the transparent dressing to Tegaderm® 1616.

A total of 227 central lines were assessed over a four month period. There were 11.9 bacteremias per 1000 catheter days when Sorbaview® 2000 was used and 7.6 bacteremias per 1000 catheter days when the Tegaderm® 1616 was used, which was not a statistically significant change (p value=0.64). There were 36 central line removals for significant bacteremias during the use of Sorbaview® 2000 and 10 during the use of Tegaderm® 1616, which was statistically significant (p value= 0.001). One-half of bacteremias occurred in the outpatient setting, and resulted in hospital admission.

CRBSIs rates are gathered in our hospital on all ICU patients and oncology inpatients who meet the surveillance definition and who have been inpatient for greater than 48 hours. Many oncology patients have central access across the continuum of care, are immunocompromised, and care for their own catheters. It is essential to review central line infection rates in context of this population’s special needs.

2439
A PILOT PROJECT TO EVALUATE THE ROLE OF A PATIENT FLOW COORDINATOR TO FACILITATE TIMELY HOSPITAL DISCHARGES. Blanca Vasquez-Clarfield, RN, MA, and Mary Dowling, MA, Memorial Sloan-Kettering Cancer Center, New York, NY.

Ensuring timely patient discharges from the hospital is a multifaceted process requiring interdisciplinary collaboration. In order to develop a sustainable, standardized approach to improving the discharge process, patient care needs specific to discharge must be addressed early during the hospital stay. Discharge decision and notification are also key variables that may adversely impact judicious throughput. A team approach allows the Patient Flow Coordinator (PFC) to work closely with all disciplines to ensure early identification and resolution of discharge needs.

Administration identified the need to increase bed availability earlier in the day to ensure early admissions, and increase patient satisfaction. In order to facilitate this goal, this NCI designated cancer center developed and implemented a Patient Flow Discharge Team. This multidisciplinary team consists of a nurse who acts as the PFC and a medication reconciliation pharmacist.

A unit based pilot project was conducted to proactively ensure the completion of all discharge requirements on the day prior to discharge. The PFC’s role is to review all discharge needs with all disciplines and to work closely with the medical staff. The PFC is the primary contact for all admitting, discharge and transfer issues. The medication reconciliation pharmacist reviews patients’ medication profiles for accuracy, counsels the patient regarding administration of discharge medications, and expedites the filling of prescriptions. A budget was allotted to provide patient transportation to home when other arrangements were not possible.

The occurrence of late discharges related to transportation was reduced by 12%, and late discharges related to a delay in filling prescriptions were reduced by 15%. Discharges by 11 am were increased by 28% by the eighth week of the pilot.

The Patient Flow Discharge Team was created to shepherd the patient through the multiple stages of admission through discharge. Discharge to home continues to be a complicated issue, not only for the medical and nursing staff, but for the patient and family as well. The PFC is able to focus on the coordination of the patient flow through the entire hospitalization.

2442
SURVEY AND CHART REVIEW EVALUATION OF THE PATIENT ASSESSMENT, CARE & EDUCATIONAL SYSTEM. Gina Johnson, MSN, RN, Supportive Oncology Services, Inc., Memphis, TN; Tami Mark, PhD, Thomson Medstat, Washington, DC; and Barry Fortner, PhD, Supportive Oncology Services, Inc., Memphis, TN.

The Patient Assessment, Care & Education (PACE) System™ was designed to address the under-identification and treatment of chemotherapy-related symptoms. It uses a pen-based eTablet operating off a wireless network. It administers the Patient Care Monitor™(PCM), a psychometrically validated, patient-reported symptom severity
screening scale that generates a real-time, point-of-care report. Cancer Support Network™ (CSN) provides educational materials.

The aim was to evaluate the system.

Ninety-two providers at 16 clinics were surveyed about their experiences. One hundred patients at two clinics were surveyed about their perceptions. At two clinics 100 patient charts were abstracted in the years prior to and after implementation to determine assessment rates.

The majority of patients reported being satisfied with the PCM (55%). Slightly more than half indicated that it helped them remember symptoms (53%) and 44% said it encouraged discussion of symptoms. 91% of respondents said it was easy to use and read (90%). 79% of patients would recommend it to others.

Providers seemed to value the report. The majority thought it increased the frequency for symptom identification and treatment. Almost 60% indicated that the PCM helped a lot with allowing for aggressive symptom treatment, and almost 50% reported that it helped them to aggressively treat under-reported symptoms.

The chart results show statistically significant increases in the assessment rates for depression, pain, and fatigue after implementation. Prior to implementation of the system only 9% of patients were assessed for depression, as compared to 73% after implementation. Fatigue assessment increased by 29 percentage points, from 63% of patients to 92%. Pain assessment increased by 21 percentage points, from 76% of patients to 97%. Examining sites separately revealed that Site A saw an increase in screening rates for all three symptoms. Site B screening rates for depression increased substantially, but there was a slight decline in screening rates for fatigue and pain.

Technology offers solutions for enhanced clinical care and efficiency. Nurses are in a role that will be expected to adopt technology for such purposes. The PACE System™ appears to be a promising approach to addressing the widespread problem of under-identification and under-treatment of symptoms.

**2443**

CNSs COLLABORATE TO OFFER CURRENT PERSPECTIVES IN ONCOLOGY NURSING. Tina Mason, ARNP, MSN, AOCN®, and Lorna Baker, MSN, ARNP, CCRN, OCN®, H. Lee Moffitt Cancer Center & Research Institute, Tampa, FL.

Clinical Nurses Specialists (CNSs) often focus on their area of expertise and at times can feel isolated. Consequently, CNSs at our cancer center looked for a team-building opportunity. Working together to plan an annual regional oncology nursing conference served to meet this need. Secondary gains included enhancement of institutional recognition and reputation.

The purpose of this abstract is to outline the processes used in designing an annual conference, Current Perspectives in Oncology Nursing, including barriers and successes.

The CNSs offer the conference with full support of Nursing Leadership. Each program is carefully planned to highlight timely topics. Nurses appreciate the opportunity to attend a conference of this caliber in their “own yard” and external participants enjoy seeing what our institution has to offer. The conference also provides a chance for our nurses to be recognized as experts among their peers. The Nursing Leadership Group consistently supports and encourages nursing staff participation.

Tasks are divided among the CNSs. Careful selection of nationally-known experts along with experienced staff to present yields programs that are extremely well received by participants. Preparation begins a year prior to the conference and extends into the post-evaluation phase. While the program design was largely the result of the efforts of the core group in conjunction with Senior Nursing Leadership, the success of this endeavor required the combined efforts of a number of departments. Due to time constraints, assistance from the Conference Planning Department has become necessary.

Our upcoming seventh annual conference is extended to a day-and-a-half. Attendance has more then doubled since inception. Modest profits have resulted. Evaluations are consistently positive. Ninety-seven percent of attendees of the last conference rated the overall program as good or excellent. We continue to strive for increased attendance. Collaboration with the Conference Planning department has significantly reduced time commitment of the CNSs. Our program is enhanced by financial support of vendors and internal grants.

This endeavor has strengthened the CNS relationship while enhancing our institution’s reputation and stature regionally. Benefits are realized for both individuals and the institution. Lessons learned can be incorporated for similar programs in the future.

**2444**

ROLE OF INPATIENT NURSES IN CLINICAL TRIALS: EMBRACING THE CHALLENGE. Alice Boyington, RN, PhD, H. Lee Moffitt Cancer Center & Research Institute, Tampa, FL.

One scientific endeavor undertaken at our NCI-Comprehensive Cancer Center is translation of basic science discoveries into anticancer drugs, further studied in phase I and II clinical trials (CT). The Oncology Nursing Society supports that every cancer patient has the right to participate in such trials if medically indicated and that nurses caring for these patients possess special knowledge in research and CTs. Historically, CT patients have received treatment in our research department. A recent trend to admit them to our inpatient units has necessitated incorporation of research practice into the clinical practice of inpatient nurses.

The purpose of this project is to design a system to ensure effective communication across inpatient and research departments and delivery of high quality cancer care for CT patients. A SWOT (Strengths, Weaknesses, Opportunities, and Threats) framework was used to identify and analyze factors internal and external to the departments.

A team representing inpatient and research staff clarified the project purpose and conducted the SWOT analysis. Scenarios were used to stimulate discussion about contrasting patient situations that affect the quality of care. Ultimately, the categories of factors that resulted from the analysis and discussion were structure, education, communication/documentation, patient identification, resources and other. A staff nurse focus group identified and discussed issues surrounding CT inpatients. Themes from these key stakeholders mirrored and enhanced those previously identified. Staff enthusiasm for the project has resulted in their continued participation. Team members have assumed responsibility for follow-up actions; the team meets monthly to report on progress and plan next steps.

The evaluation process includes (a) number of outputs, i.e. new policies, integration of cancer research and CT content into educational offerings, and revised clinical ladder elements; (b) outcomes such as completeness of data recorded on resource documents, maintenance of protocol integrity, and increased knowledge of research practice.

Nurses are educated as clinical practitioners and may not be aware of the challenges associated with CT patients. Building systems that focuses on factors that integrate clinical and research care is an opportunity to enhance professional development of oncology nurses and to improve the quality of care for CT patients.
ADAPTATION THEORY AND SYMPTOMS OF POST-TRAUMATIC STRESS DISORDER IN CANCER PAIN PATIENTS. Linda Huebert, RN, BSN, OCN®, Roswell Park Cancer Institute, Buffalo, NY; Stephen Schwabish, PhD, Fielding Graduate University, Santa Barbara, CA; and Michael Zevon, PhD, and Oscar de Leon-Casasola, MD, Roswell Park Cancer Institute, Buffalo, NY.

Previous studies examining oncology patients experiencing pain have reported an increase in post-traumatic stress disorder; however the methodology and level of reported post-traumatic stress disorder (PTSD) has been variable. The extent to which PTSD exists in the cancer pain population also remains unclear. In addition, the potential moderating impact of cognitive adaptation beliefs on the severity of PTSD warrants exploration.

To empirically explore relationships between components of cognitive adaptation theory and the development of PTSD in patients receiving treatment for cancer-related pain.

Cognitive adaptation theory has been shown in prior research to be related to stress management in a range of patient populations. The hypothesis is that PTSD symptoms will be minimized in pain patients who employ the optimism, mastery, and self-esteem cognitive adaptation responses. Conversely, less use of these cognitive responses is hypothesized to be related to higher levels of PTSD severity.

An empirical evaluation of the relationship of cognitive adaptation theory components – optimism, mastery, and self-esteem cognitions – to PTSD symptoms in cancer pain patients was conducted.

A self report questionnaire based methodology was used. Correlational analyses will examine the strength and direction of the relationships between optimism, mastery and self-esteem and PTSD severity. The pilot sample examined herein consists of 25 patients (18+ years) currently receiving treatment in the Pain Clinic. Patients were evaluated with well validated construct measures. Measures of cognitive adaptation theory include Life Orientation Test, the Rosenberg Self Esteem Scale, and the Mastery Scale. This study will use the PTSD Checklist – Civilian, a widely used, well developed measure of post-traumatic stress. Descriptive statistics will be computed for the dependent variables and subject demographics.

Support for the hypothesized impact of cognitive adaptation beliefs will provide valuable information relevant to the development of interventions with this critical population. These interventions can be integrated into ongoing nursing care for this challenging population.

QUALITY OF LIFE IN PATIENTS WITH PROSTATE CANCER: A CLINICIAN DRIVEN STUDY. Melissa Kratz, RN, MSN, AOCN®, Andrea Geshan, RN, MSW, and Sharon Kimmel, PhD, Lehigh Valley Hospital and Health Network, Allentown, PA.

Men diagnosed with prostate cancer (PC) face a unique challenge in choosing a curative therapy that may significantly affect post treatment quality of life (PT-QOL). There are limited studies that examine PT-QOL compared by PC therapy: radical prostatectomy, external beam radiation therapy (EBRT) and brachytherapy. As clinicians who coordinate multidisciplinary second-opinion consultations, we guide patients in their decision-making process.

Study purpose is to identify and better understand the patients’ PT-QOL experience across various curative therapies. Study is done in 2 phases: phase 1 investigates prevalence and PT-QOL indicators of patients presenting with localized PC to this institution. Phase 2 includes a functional assessment of the patient’s experienced PT-QOL issues.

The patient participation in decision making model was utilized. A functional assessment of cancer therapy and PT-QOL questionnaire will be distributed in Phase II. Purpose of the questionnaire is to better understand the patients’ experiences. Questionnaires will be employed and may be modified based on issues identified from a focus group of prostate cancer survivors.

Phase I: 552 men were treated during 2004–2005. Mean age 68±9 years, 92% white, 84% married. 84% (462) were diagnosed Stage2, 8% (43) Stage3, 7% (41) Stage4 and 1% (6) stage unknown. Total follow-up months 7916 (mean 14.6±8.8), 95% (524) alive at last contact. Treatment breakdown: 49% (270/552) underwent radiation treatment (RT); 70% (189/270) EBRT, 28% (75/270) Brachytherapy. 42% (232/552) underwent surgery. RT patients were older (70.5±8 years) than Surgical (65±9). (p<0.001) There was no statistically significant difference in Gleason scoring between the two groups.

It is anticipated the outcome of this study will be used to develop interventions designed to guide patients in their curative-therapy decision making-process and better prepare patients to anticipate and manage real and perceived PT-QOL issues.

TAKING RADIATION ONCOLOGY PATIENT EDUCATION TO THE NEXT LEVEL: THE USE OF THE CULTURAL CARE MODEL. Maryann Dzibela, RNC, MSN, OCN®, CCRP, MedImmune Oncology, Gaithersburg, MD.

Patients and families manage and cope best when they have a good support system and good relationships with their caregivers. The primary role of the radiation oncology nurse is to provide education in an outpatient setting. This educational project enabled the staff to use an innovative approach to cancer education. The Sunrise Model, used to depict the theory of culture care, diversity, and universality, empowered the nurses with a unique framework and rich perspective to deliver an alternate support system for individualized care.

The purpose of this poster is to illustrate, as an exemplar (a) an outline of Dr. Madeleine Leininger’s Sunrise Model (b) application of the model for it’s use in oncology education and (c) the integration of a culture care education program for the oncology team.

Several key strategies were implemented by using the theoretical framework of nursing by Dr. Madeleine Leininger: “The Theory of Culture Care, Diversity and Universality.” Radiation nurses and therapists were educated weekly for 6 weeks. Examples of cultural groups, values, patterns and health beliefs were presented and were followed by open discussions. A Transcultural Manual was presented and on hand in the department to assist in delivering effective nursing care.

Improvement in educating patients in the radiation department is necessary for successful delivery of care to the culturally diverse population. The goal of this project was met by elevating the level of delivery of culturally sensitive client care by using “The Theory of Culture Care, Diversity and Universality.” The staff learned to identify, describe, and examine this theory and use this new knowledge to better understand health care practices within various cultural groups.

The new model of care presented to the educators in a radiation oncology practice not only increased awareness; it helped nurture a positive, supportive and caring relationship between the staff and their patients, families, and community. Future studies are imperative using this model of care. Culture care knowledge is essential in guiding the nurse educator.
IMPLEMENTING EVIDENCE-BASED PRACTICE WITH LEADERSHIP DEVELOPMENT INSTITUTE PROJECT PLAN. Cynthia Idell, RN, BA, MSN, AOCN®, and Marcia Grant, RN, DNSC, FAAN, City of Hope National Medical Center, Duarte, CA.

Although evidence-based practice (EBP) is a focus of the Oncology Nursing Society (ONS), staff adaptation of EBP remains challenging. A recent staff nurse survey indicated 29% have no experience with EBP while 47% are considered “beginners.” Knowledge gaps occur despite multi-year efforts aimed at translating research into practice using case studies / EBP review. Barriers include time constraints, knowledge deficits, and resource access. EBP is essential for organizational strategic goals, e.g. shared governance councils and identification of nurse-sensitive patient outcomes. An organizational approach to promote staff utilization of EBP is desirable.

Through participation in the ONS Leadership Development Institute, an advanced practice nurse designed a project plan containing a tiered strategy to institutionalize EBP practice. The first tier piloted an EBP curriculum to train staff RNs to identify nurse-sensitive patient outcomes, to review clinical practice guidelines, and to incorporate guideline concepts into daily practice through creating specific action plans. The target audience was nurses who wished to become conscious consumers of EBP. In the second tier, EBP champions moved on to populate shared governance clinical practice, quality, and research councils.

A project team created EBP curriculum to build staff skill-sets. Internal and external assessments were performed, including driving / restraining forces. The course contained action-oriented, interactive activity to promote clinician use of EBP. Approaches included: expert EBP faculty lectures, small group work, computer training, case studies and clinical practice guideline application. Project plans were generated; follow-up occurred at 3 and 6 month intervals. Additional funding for EBP champion training was realized through an Uni-Health grant.

Project goals were evaluated via: 1) Pre-post test EBP knowledge surveys; 2) Council participation; 3) Evaluation of project plan outcomes by faculty; and 4) Performance improvement trends of nurse-sensitive patient outcomes, e.g. pain / fatigue management.

Evidence-based practice is a growing field, yet nurses face barriers in adaptation of best practices. For example, symptom management falls within the RN scope of practice and outcomes are nursing sensitive. An interactive EBP curriculum designed to minimize barriers and to increase staff awareness, when combined with long-term follow-up of individual project plans, may be used to institutionalize EBP.

ADDRESSING THE INVISIBILITY OF NURSING: IMPLICATIONS FROM AN ANALYSIS OF NCI-DESIGNATED COMPREHENSIVE CANCER CENTER WEBSITES. Deborah Boyle, RN, MSN, AOCN®, FAAN, Good Samaritan Medical Center, Phoenix, AZ.

Conventional wisdom upholds that ‘the reason for the existence of the modern hospital is to provide nursing care’ and that ‘physicians are an episodic presence in the lives of patients while nurses control the environment of healing.’ Yet in public and professional communication venues, details concerning medical expertise predominate while corollaries of nursing competency remain in absentia. Is the specialty of cancer nursing invisible?

This project’s goal was to evaluate the degree of nursing presence in the 39 Comprehensive Cancer Center (CCC) websites.

Each website was accessed from NCI home page linkages. In the absence of nursing recognition on the CCC home page, at least 5 links were broached to pursue citations about nursing practice. The ‘Search’ option was also utilized with the term ‘Nursing’. Each site was evaluated for the presence of the following data: citation of the CNO in leadership directories, listing of nursing personnel and resources within phone listings, mention of nurses within interdisciplinary teams, integration of nurse investigators in research rosters, inventories of nursing education programs, and integration of nurse-specific innovations in annual reports and media selections.

Results revealed a paucity of information describing the scope, nature and competencies of cancer nursing in the 39 CCCs. No CCC listed nursing on its home page and only two identified the CNO in their leadership directory. Fourteen of the 39 sites had no listing of nursing anywhere in its website. Despite the fact that cancer care could not exist without experienced, knowledgeable, empathic and proficient oncology nurses, their contributions were only marginally recognized in the targeted formal communication venue of analysis.

A proposal for changing this current reality will be delineated. These recommendations have implications for the 39 CCCs, the 20 NCI-designated Cancer Centers, and community cancer programs nationwide. For those who practice in a clinical research environment, oncology nursing skills are manifested in oversight of novel therapies, intensive and ongoing supportive care of patients and families, effective interdisciplinary communication, and continued high-level critical thinking. A concerted effort to market cancer nursing is required to change this current paradigm that fosters nursing invisibility.

‘DID SOMEONE TELL YOU ABOUT MEDICATION SIDE EFFECTS TO WATCH FOR WHEN YOU WENT HOME?’ Valsamma Varghese, RN, and Hyacinth Gordon, RN, MSN, OCN®, CRRN, MDACC, Houston, TX.

A study by Clarke, et al revealed that up to 50% of hospitalized patients perceived that they had not received information about the side effects of their medications. Teaching patients about their medications is one of the primary education responsibilities of nurses. To make informed decisions about medications, patients need to be educated about potential side effects. Additionally, knowledge about medication side effects allows patients to report to caregivers in a timely manner so decisions can be made about effectiveness.

Although patient instructions for home medications are provided prior to discharge, in a recent survey conducted by the NRC + Picker Institute at a large comprehensive cancer center, 50% of patients on a surgical oncology urology and orthopedic unit reported they were not told about medication side effects to watch for when they were discharged.

A quality improvement project was implemented to ensure that nurses provided information to patients about side effects of their medications. A goal was established to lower survey scores to 0% on the NRC+Picker survey (lower score reflects best practice). Strategies included participation by the entire team of nurses and partnerships with nurses and patients/family to ensure the patient is provided with and can recall the medication instructions provided. “Ask Your Nurse” posters were designed and placed in patients’ rooms as a reminder to seek information about the side effects of medications received.

NRC+Picker and unit follow-up survey scores one month after implementation of strategies revealed that 100% of patients reported that they were told about the side effects medications. An increase in the nursing documentation about patients’ reports of side effects was noted.

Patients should be educated about the side effects of medications so that they can report to caregivers in a timely manner and appropriate treatment options can be explored. Nurses are in a unique posi-
tion to communicate medication side effect information to patients. Implementation of a quality improvement project to promote the education of patients about the side effects of their medications can improve patient care outcomes.

2464
DEVELOPMENT OF A PLAN FOR THE EARLY DETECTION AND INTERVENTION FOR DELIRIUM IN PATIENTS WITH CANCER. Kim Slusser, RN, BSN, CHPN, Lesley Tokarz Vancura, RN, MS, CNP, and Barbara Holmes Gobel, RN, MS, AOCN®, Northwestern Memorial Hospital, Chicago, IL.

During a falls quality improvement project, it was noted that 35% of patients admitted to the oncology units who fell had developed mental status changes during their admission. Delirium was also reported in patients anecdotally by nurses.

An Evidence Based Practice (EBP) journal club was formed to develop a plan for early detection of delirium and identification of evidence based nursing interventions to prevent or minimize the experience and negative outcomes of delirium.

The journal club consisting of oncology nurses met every three weeks to review the literature. The initial screening tool determined to be useful in the assessment of the oncology patient was the portable mini mental status exam. It was decided this would be an excellent screening tool for admission to determine if the patient has any underlying cognitive disorders such as dementia. Then, multiple delirium assessment scales were reviewed and discussed for reliability, validity, and applicability for the oncology population. The instrument also had to be short and easy for the staff nurse to utilize, ensuring compliance and accurate findings. The Confusion Assessment (CAM) instrument was chosen. It met all the criteria and had established use with oncology patients. Review of the literature on nursing interventions for delirium yielded very little research data. Expert opinion and published practice guidelines were used as the basis for developing guidelines for delirium interventions.

Oncology nurses were educated on the importance of assessing for mental status changes and appropriate interventions for the oncology patient experiencing delirium. Delirium assessment and interventions were added to the annual RN competency training for oncology.

As a result of the journal club findings and recommendations, change in practice is being pursued which includes the portable mini mental status exam on admission, CAM assessments every 12 hours, and the implementation of delirium interventions based on the CAM results. This model is in its final stages of approval with the anticipated implementation to occur by winter of 2007. Once approved, the use of the assessment tools and implementation of interventions will be audited for compliance and for impact on patient’s mental status.

2469
CREATIVE METHOD TO SUPPORT MULTIDISCIPLINARY EVIDENCE-BASED PRACTICE IN ONCOLOGY. Anne Delengowski, RN, MSN, AOCN®, Thomas Jefferson University Hospital, Philadelphia, PA.

Evidence-based practice is the core of clinical practice in oncology today. Developing and coordinating these practices across disciplines in any large organization is a significant task. The need to assure the continuity of these practices to the care of the oncology patient is critical. In an attempt to drive evidence based practice across the oncology services, including BMT in a large urban hospital, the oncology nurses initiated and coordinated the development of a multidisciplinary group of professionals with the ongoing task of identifying, developing and implementing standards of care based on interdisciplinary evidence.

The group began by identifying the most critical standard that crossed units and disciplines. It identified neutropenic fever as a standard. The group consisted of all disciplines involved in the care of the complicated population, including nurses from inpatient and outpatient areas, physicians from hematology/oncology, ED and infections disease. Pharmacist, nutritionist and representatives from the faculty of the school of nursing were included.

In order to accomplish the purpose of developing interdisciplinary evidence-based standards, the group needed to question assumptions about present practices across all disciplines. The group was challenged to pull literature from all the different specialties. All group members’ opinions were valued when supported by best evidence. Upon completion and agreement by the committee of the standard, it was then sent to the various hospital committees for final approval.

The group has continued to develop standards that are high risk/high volume issues that cross disciplines. Tumor Lysis syndrome and hypercalcemia were the next projects addressed by the group.

In addition to the clinical value of the multidisciplinary evidence based practice, the unifying experience within the group has built mutual respect for the members, including the value of the opinion of each discipline. At the beginning of the process, each member brought certain beliefs and ingrained practices, acknowledging substantiation must be required to prove evidence based theory. The group is moving forward with a committed effort and dedication to seek more standardization in key areas of care. The future of clinical care rests on the strong foundation of the evidence we build today.

2470
YOUNG WOMEN’S EXPERIENCES WITH BREAST CANCER: AN IMPERATIVE FOR TAILORED SERVICES. Margaret Fitch, RN, PhD, Toronto Sunnybrook Regional Cancer Centre, Toronto, Canada.

A diagnosis of breast cancer is difficult for a woman, regardless of her age. Seventeen percent of women are diagnosed with breast cancer under the age of 50 and breast cancer is the leading cause of death in women between 35 and 50 years in Canada. This cohort of women has unique perspectives about their life roles and responsibilities that could influence their experiences and needs during the diagnosis and treatment of breast cancer.

The ultimate aim of this qualitative investigation was to better understand how to tailor information and support interventions for young women diagnosed with breast cancer. The specific purpose was to explore the perspectives and experiences of women 45 years or less at the time of their breast cancer diagnosis.

The supportive care framework guided this work.

Twenty-eight women underwent in-depth interviews regarding the events surrounding their diagnosis and treatment for breast cancer, their responses to those events, the challenges they experienced, and how they managed with those challenges. Analysis was guided by a phenomenologic framing.

The interviews were profound and full of passion. Repeatedly, these young women described an intense desire to live and to be able to fulfill roles, responsibilities, and commitments that were of importance to them. Three overarching themes were revealed: everything depends on acting now; everything is “out of sync”; and, cancer invaded my whole life. Many of these women could not find appropriate services or information for their age group. The interviews provided rich data about the views of young women coping with the cancer experience and create an imperative for tailoring future

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services more appropriately. Particularly, those designing services and programs need to think about childcare, the time of day when programs are offered, and use of technology for this age group of breast cancer survivors. Specific information needs to be available about fertility, body image, and sexuality.

2473
PATIENT-INITIATED STRATEGIES FOR LIVING WITH COGNITIVE CHANGES: IMPLICATIONS FOR CANCER NURSES. Margaret Fitch, RN, PhD, Toronto Sunnybrook Regional Cancer Centre, Toronto, Canada.

Cancer patients have reported experiencing cognitive changes during and following, their cancer treatment. Although effort has been made to measure cognitive changes and identify those who might benefit from intervention, relatively little effort has been focused on patient solutions for coping with the cognitive changes. For those who experience what survivors refer to as “chemo brain” or “chemo fog”, the impact can be profound. A better understanding of how individuals experience the impact and the strategies they use to cope with the changes could be used to inform patient education programs.

This qualitative investigation was undertaken to increase our understanding about the interventions patients use to combat cognitive changes associated with cancer treatment.

In-depth interviews explored descriptions of 1) cognitive changes experienced by patients, 2) the impact of the changes on the individuals, 3) the strategies patients initiated to deal with the changes, and 4) which strategies they found helpful. A purposive sample of 34 patients (various cancer sites) and 15 family members participated. A phenomenologic framing was used to analyze the interview transcripts.

Patient participants experienced various cognitive changes including the inability to concentrate, remember details or perform simple calculations. Many perceived that the changes as temporary and were expecting to return to pretreatment status. Depending on their work demands, or leisure activities, the actual impact and concern about any changes varied. Some participants clearly found it was a daily challenge to manage. Strategies patients used most frequently included writing notes, making lists, using special reminders, and using games to stimulate their mental function. Many enlisted help of family members and made use of humor. All participants discussed the importance of being told prior to treatment about the potential to experience cognitive changes and how to assess whether they are happening. They also wanted to learn strategies for dealing with them from cancer nurses and other survivors, not be left to discover strategies themselves on a trial and error basis. For those who experience cognitive changes, the impact can be profound.

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USING RESEARCH KNOWLEDGE EMBEDDED IN POLICY REPORTS TO CREATE QUALITY WORKPLACES FOR CANCER NURSES: LESSONS IN KNOWLEDGE EXCHANGE. Margaret Fitch, RN, PhD, Toronto Sunnybrook Regional Cancer Centre, Toronto, Canada.

Improving the working lives of cancer nurses is a key factor in addressing the shortage of cancer nurses. Significant effort has been devoted in Canada to summarizing current research knowledge about how to create quality work environments for nurses and producing policy reports for dissemination of that knowledge. It is anticipated these reports will promote knowledge uptake and utilization in practice arenas.

This study was undertaken to determine the awareness and use of policy reports in cancer settings. Additionally, the investigation was designed to identify quality workplace initiatives that had been undertaken and factors that influenced their success.

The work was guided by Lomas’s conceptual framework on knowledge transfer.

In-depth interviews were conducted with senior decision makers (n=124) in cancer organizations across the country, change champions (n=19), middle managers (n=14) and staff nurses (n=5) about experiences with quality workplace initiatives. The initial findings were presented to a broad range of stakeholders (4 sessions, 120 participants) and focus groups (7 sessions, 33 participants) for debate and further policy and research recommendation development.

The awareness of the policy reports was lower than expected (14%-60%) and use of the report information was primarily symbolic. However, many quality workplace change initiatives had been undertaken by the cancer organizations. The initiatives often focused on the topic areas in the policy reports, but few individuals could identify a specific report as the basis for their own quality workplace initiative. The findings raise serious concerns about how research findings about quality work environments are disseminated effectively. The advice offered by the participants regarding future workplace initiatives revolved around the need for meaningful involvement of staff members, the value of relationships and collaboration, accountability for knowledge utilization, being committed to the change, capacity to sustain the change, and clarity about expected outcomes for the change initiative.