Oncology Nursing Society 2008 Advanced Practice Nursing Conference Poster Abstracts

ABSTRACT 3168

Title: COMBINING PEP WITH HIGH TECH: AN INNOVATIVE APPROACH TO ONCOLOGY NURSING STAFF COMPETENCIES

Focus Area: Education

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Given the advanced technology and complexity of cancer care, sound clinical decision making by the nurse in delivering cancer care is of critical importance to improving patient outcomes. Clinical Nurse Specialists (CNS's) are clinical experts who utilize research evidence to identify and initiate changes that will improve nursing and education, and advance practice. Validating oncology nursing competencies is the foundation for ensuring the delivery of safe, current, and evidence-based patient care. The oncology CNS's at Meridian Health developed an innovative competency program using creative teaching strategies that engage the nurse in the process of learning as an active participant rather than a passive receptacle of information.

The purpose of the program is to transition the staff nurse from the traditional competency assessment to an accountability based approach. This method of verification includes coached, guided, and critical thinking activities which address the numerous aspects of adult learning.

High risk, low volume problem areas were collaboratively identified by the CNS's from each of the hospitals and planning initiatives were discussed. The CNS's designed a variety of learning activities. These creative, cost effective, and interactive strategies included games, puzzles, posters, computer-assisted instructions, and skill demonstrations. Specific examples of this mobile program include the use of SimMan® which is a portable patient simulator for team training with realistic anatomy and, clinical functionality which challenges the nurse's clinical and decision making skills during realistic patient care scenarios (i.e oncology emergencies). The PEP (ONS's Putting Evidence Into Practice®) Wheel was developed to validate symptom management competencies for bedside oncology nurses. The ONS Chemotherapy Trivia game and Spill Drill Demonstrations provided a fun atmosphere.

Summative evaluations include verbal and written feedback from nurses, and for those who require assistance, individualized action plans are developed to strengthen competency. Validation checklists are recorded and nurses are asked for their ideas for future competency assessment. Advanced practice nurses are expected to utilize the best evidence to expand and validate the bedside nurse's clinical competency.

Implications for practice include creating education that motivate staff to enhance clinical practice, while creating an environment that fosters mutual trust and builds camaraderie.

ABSTRACT 3250

Title: PERSONAL INFLUENCING FACTORS THAT AFFECT ROUTINE PAP SMEAR TESTING IN LOW RESOURCED AFRICAN AMERICAN WOMEN

Focus Area: Research Study

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Pap smears are well established as a screening test that detects precursor lesions to cancer. Despite the benefits that have been achieved with the Pap smear, women are still dying from cervical cancer. African American women's (AAW) mortality rates from cervical cancer are highest compared to all other groups of women in part due to their screening practices.

The purpose of this study was to explore the personal influencing factors that contribute to Pap smear testing to better understand the motivating factors behind why lower resourced AAW are not tested. In order to address these factors, women who obtained routine Pap smears (every 1-3 years) as well as those who did not were included.

The Interaction Model of Client Health Behavior (IMCHB) was used as a guiding framework to qualitatively explore the interactions between the women's social influences and previous healthcare experience to determine what affects their cognitive appraisal regarding the importance of cervical cancer screening.

Face-to-face interviews with 24 low-income AAW (aged 19 to 60) were conducted. Eleven obtained routine screening and 13 did not. Data were analyzed using two approaches: 1) constant comparison to collect and evaluate data inductively and arrive at an understanding of major themes and comparisons across groups; and 2) a content analysis where the interview data were considered in relation to the elements of the IMCHB.

The routine-use group was socially influenced to value preventative healthcare while the non-routine-use group was not. Previous healthcare experiences with having a Pap and pelvic exam were positive for the routine-use group and negative for the non-routine-use group. Cognitively, both groups believed Pap's tested for cancer and STDs, and vulnerability to cervical cancer was thought to run in families, that they were either safe from risk or hoped that the odds were in their favor. An unexpected finding was a history of trauma (n=9) (sexual, physical, and medical) among the non-routine-use group that elicited negative perceptions towards their previous healthcare experience contributing to avoidance of the screening test. The implications are that these women do not seek out routine gynecological care, increasing their risk of undetected cervical cancer.

ABSTRACT 3306

Title: IMPROVING QUALITY OF LIFE IN HEAD/NECK CHEMORADIATION PATIENTS WHEN USING A SUPERSATURATED ELECTROLYTE ORAL RINSE

Focus Area: Clinical/Evidence-Based Practice

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American Cancer Society Cancer Statistics (2008) estimate 35,310 new oral cavity/pharynx tumors, approximately 2/3 men and 1/3 women, representing 3% of all new cancers. Overall rates of oral mucositis (OM) in head and neck cancer (HNC) patients receiving chemoradiation are 80-97%, with 34-57% experiencing NCI Grade 3 or 4 OM. While radiation/medical oncologists seek improvements in treatment modalities to improve cancer control without increasing toxicities, advance practice nurses (APNs) seek to better manage symptoms of OM, acute xerostomia, dysphasia, odynophagia, taste changes, pain, skin complications, nutritional dysfunction, and fatigue.

Chemoradiation often results in physiological or functional impairment, psychological distress, and disruption in social and family interactions, which have an impact upon QOL in HNC patients. Evidence-based interventions by APNs can impact these complications. The purpose of this multi-site patient registry is to evaluate the effect of a supersaturated electrolyte oral rinse (SSEOR) on OM in patients with a variety of cancers, including HNC patients. Health belief models formulated a theoretical framework that guides this open-label, non-randomized study.

After IRB approval, patients at risk for developing OM were given SSEOR (Caphosol®) with instructions to rinse 4 times/day, initially beginning treatments, up to 10 times/day for increasing OM symptoms. Practitioners/patients completed surveys regarding symptoms in four clusters: dysphagia, pain, and clinical and functional mucositis/stomatitis. Demographics, risk factors, other adjuvant OM medications, NCI toxicity scales, daily VAS for pain ratings were captured. Frequencies were tabulated in SPSS.

Of the 217 patients evaluated to date, 67 (31%) were HNC patients. Overall, 41% of HNC patients reported very satisfied and 36% satisfied with Caphosol providing symptom relief and would recommend its use, and no patients reported unsatisfied. Practitioners assessed 81% had < grade 2 OM with no OM assessed in 12% of patients. Practitioners satisfaction with SSEOR was 77% satisfactory to excellent and patients were 76%. High compliancy levels of SSEOR usage was reported (96% 4x/day). Dysphagia grade < 1 was 38%.

This preliminary data is encouraging for APNs who manage HNC patients as SSEO rinse shows evidence of decreasing OM severity and related symptoms of chemoradiation.

ABSTRACT 3494

Title: THE PSYCHIATRIC ADVANCED PRACTICE NURSE'S ROLE IN AN ONCOLOGY SETTING

Focus Area: Clinical/Evidence-Based Practice

Author: Mary Hughes, BS, MS, RN, CNS, University of Texas M.D. Anderson Cancer Center, Houston, TX

Depression and anxiety are common complaints of oncology patients and can reduce treatment compliance, decrease drug efficacy, and may cause metabolic changes (McDaniel, J.S., 1995). In 1990, in an effort to address quality of life issues, this large comprehensive cancer center in a southern metropolitan area, created a psychiatry section designed as a consultation-liaison service with no dedicated psychiatry unit. Psychiatry consisted of 2 psychiatrists and 1 clinical nurse specialist (CNS) who would assess and treat both inpatients and outpatients. A psychiatrist would staff the consult if the patient needed medications because the CNS didn't have prescriptive authority. Otherwise, she would independently design and implement a treatment plan for the patient.

This presentation will describe how Advanced Practice Nurses (APN) have impacted psychiatric-mental health patient care in the institution.

Psychiatry is now a department made up of 5 APNs (3 CNS and 2 nurse practitioners, NPs) and 4 psychiatrists. The APN functions both as independent therapist and /or collaborator with the staff psychiatrists in providing multi-modal therapy to both inpatients and outpatients. They evaluate patients independently, but when warranted, request medical psychiatric assessment and intervention. The CNSs do not have prescriptive authority and see mainly outpatients. The NPs see mainly inpatients and have prescriptive authority. This collaborative practice includes referrals from providers from all services to psychiatric APNs to provide mental health support for their patients. Since 2003, each APN has been able to bill for services in the hospital and in the outpatient clinic.

The APNs see around 50% of all patients in the Psychiatry department making it possible for Psychiatry to address the psychiatric-mental health needs of twice as many patients. Outpatient consults to Psychiatry are seen within a week and inpatients are seen within 4 hours due to the availability of APNs.

Working collaboratively, as well as independently, psychiatric APNs provide cost-effective, timely access to psychiatric-mental health services than if patients were only seen by psychiatrists.

ABSTRACT 3495

Title: DEVELOPMENT OF A SELF-REPORT INSTRUMENT TO MEASURE UROGENITAL ATROPHY SYMPTOMS IN THE CLINICAL SETTING

Focus Area: Research Study

Author: Joanne Lester, PhD, RNC, CNP, AOCN®, The Ohio State University/James Cancer Hospital and Solove Research Institute, Columbus, OH

A reliable and validated self-report instrument to measure urologic, genital, and sexual symptoms in breast cancer survivors does not exist in the literature.

Primary Aim: To develop a reliable and valid self-report instrument for use in the clinical setting that describes urogenital atrophy symptoms in breast cancer survivors.

ONS Research Agenda priorities: Research in cancer symptoms and side effects; Research that considers the late effects of cancer treatment and long-term survivorship issues for patients and families; and, Research in nurse-sensitive patient outcomes.

The theory of unpleasant symptoms provides a theoretical framework to identify symptom(s) and their characteristics.

An extensive literature search was performed to generate items that provided representation of pain and discomfort, function, satisfaction, and urogenital quality of life from urologic, genital, and sexual domains. A 45-item urogenital atrophy questionnaire resulted. Initial psychometric properties of face and content validity were established through an expert panel, and CVI score. A pilot study (N=30) was conducted to test the instrument, and to establish reliability with test-retest.

A larger study (N=334) was conducted with a slightly modified instrument to establish baseline reliability and validity.

Factor analysis was used to statistically establish factors for the urogenital atrophy questionnaire. A second factor analysis was performed on items that did not include sexual activity to determine if items could provide inquiry about urogenital symptoms and include all women, regardless of sexual orientation, partner status, penile intercourse, and levels of sexual activity. Reliability was established using the domain sampling model and internal consistency measures. Psychometrically sound instruments were used to establish convergent and discriminant validity (Female Sexual Function Instrument & Functional Assessment of Chronic Therapy, Breast, with Endocrine Scale).

A 10-factor, 30-item instrument resulted that enables women, specifically breast cancer survivors to self-report symptoms related to urogenital atrophy. Further item reduction will occur to eliminate redundant factors and items, and create a brief and concise instrument for use in the clinical setting (in process). Future research includes development of an accompanying objective instrument to measure the signs of urogenital atrophy (in process). Only then will clinicians possess a psychometrically sound instrument to measure the signs and symptoms of urogenital atrophy in breast cancer survivors.

ABSTRACT 3503

Title: CREATING AND IMPLEMENTING TRANSITIONAL CARE SUMMARIES FOR CANCER SURVIVORS

Focus Area: Clinical/Evidence-Based Practice

Authors: Anna Schaal, RN, BSCN, MS, ARNP, Norris Cotton Cancer Center, Lebanon, NH; Ellen Smith, MS, PhD, NCCC, Lebanon, NH; Laura Urquhart, ARNP, NCCC, Lebanon, NH; Wendy Disalvo, ARNP, NCCC, Lebanon, NH; Mary Scott, ARNP, NCCC, Lebanon, NH; Charlene Gates, Dartmouth Hitchcock Medical Center, Lebanon, NH; Karen Skalla, ARNP, Norris Cotton Cancer Center, Lebanon, NH

According to the National Cancer Institute, the number of patients surviving cancer is increasing each year. Today, nearly 11 million people have survived a cancer diagnosis. Although improved survival is an exciting and much desired outcome of advancing science, cancer survivors are faced with numerous challenges, many of which have been unaddressed by the healthcare professional community. For example, patients completing therapy are often abruptly shifted from frequent contact with the healthcare team to less frequent follow up, and plans for post-treatment monitoring are not outlined for patients and primary health care providers. To address problem, advanced practice oncology nurses at the Norris Cotton Cancer Center developed Transitional Care Summary (TCS) documents for patients with Hodgkins disease and breast cancer who had completed treatment.

The Institute of Medicine has proposed that patients and primary care providers (PCP) receive a comprehensive summary outlining the patient's cancer treatment history, as well as recommendations for necessary follow-up. The TCS is a portable document which includes a treatment summary, diagnostic test results as well as plans for long term follow up care and late effects monitoring. It also includes recommended health maintenance activities.

The TCS was pilot-tested with PCPs in our referral network to determine whether the document contained useful information needed by PCPs caring for cancer survivors. PCPs (N = 20) were given a sample TCS and then asked to provide feedback by completing a SurveyMonkey® web-based survey. The survey contained 21 questions using both likert scale and open-ended question formats.

The survey completion rate was 100%. All of the respondents agreed that the TCS will enhance their ability to provide cancer specific care to their patients and 100 % would like to continue receiving TCS on their patients. The responses were overwhelmingly positive and the constructive feedback was utilized to improve the TCS.

Patients completing initial Hodgkins disease and breast cancer treatment are now provided with a TCS, and copies are sent to the patient's PCP. Other advanced practice nurses could utilize the results of this project to develop their own TCS specific to their patient population. Future assessment of patient satisfaction with the TCS document is needed.

ABSTRACT 3513

Title: A SENIOR MULTIDISCIPLINARY PROSTATE CANCER CLINIC—IDENTIFYING THE PATIENT POPULATION AND ADDRESSING TREATMENT GOALS

Focus Area: Clinical/Evidence-Based Practice

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ACS guidelines recommend prostate cancer screening as long as life expectancy exceeds ten years. However, males near the predicted life expectancy of 74.83 (http://www.ssa.gov/OACT/STATS/table4c6.html) continue to be screened for and diagnosed with prostate cancer. With diagnosis, this population requires treatment recommendations that are age appropriate for their stage and grade of disease.

A Multidisciplinary Prostate Cancer Clinic (MPCC) was started at this NCI designated cancer center in 2004. During FY 2007, 486 newly diagnosed prostate cancer patients were evaluated. Forty nine (10.1 percent) of the patients were 75 years of age or older.

When diagnosed with prostate cancer, a recommendation for surgery in patients 75 and older is not standard-of-care. However, direction and education regarding the remaining appropriate treatment recommendations, including surveillance should be provided. A Senior MPCC was opened at this center in January 2008, based on our proven MPCC model. The MPCC database was reviewed for past treatment recommendations in patients age 70 to 75, revealing that no patient 75 or older was referred for robotic or open radical prostatectomy. Thus, seventy-five and older was chosen for the referral age criteria. In the Senior MPCC, patients are scheduled sequentially to see a Radiation Oncologist and a Medical Oncologist. A Urologist is available for consultation when cryotherapy is considered a treatment recommendation. An Oncology CNS provides the initial evaluation, facilitates subsequent visits, and provides follow-up assistance as the patients work their way through the decision-making process. Follow-up assistance routinely involves detailed patient education.

Eighteen patients have been evaluated since February 2008. Eight patients (44%) have been 'treated' with Active Surveillance/observation. Ten (56 %) patients were diagnosed with intermediate-to high-risk disease and received treatment. One to two patients are evaluated weekly with a two to three week wait for the next available appointment. Patients and their families consistently verbalize appreciation regarding the clinic process.

The senior MPCC is tailored to address the specific needs of this patient population. This approach should be adopted at other NCI cancer centers. The Oncology CNS has appropriate training and background to provide essential education and coordination for this patient population in the outpatient setting.

ABSTRACT 3516

Title: NP SURGICAL ACUTE CARE CLINIC FOR ONCOLOGY PATIENTS

Focus Area: Administration/Leadership Development

Author: Bernadette Bittner, APRN, University of Utah Huntsman Cancer Hospital, Salt Lake City, UT

Huntsman Cancer Hospital has an extremely busy surgical floor. It is often a challenge to place post operative, surgical patients, because of bed availability. Nurse practitioners may be able to facilitate earlier discharges and closely follow the patient in clinic. NP patient evaluations may include wound checks, drain removals, lab checks or simple procedures.

The purpose of the project is three fold. One to improve patient access to care, secondly to facilitate patient discharge and third, improve bed utilization for our hospital. The new acute care clinic will hopefully help patients avoid unnecessary emergency room visits.

A surgical acute care clinic was opened in coordination with the already existing internal medicine acute care clinic. Education and advertisement was made available to clinic staff and surgeons. Two nurse practitioners are available Mon-Friday 8-5 pm, to staff the acute care clinic. These services will be in addition to their inpatient responsibilities. The surgical acute care clinic "pilot" is currently in process. Ongoing education and advertisement is necessary.

Multiple data points are being collected for evaluation purposes. The inpatient data includes: 5th floor Daily census, surgical admits, over flow of surgery patients to other areas of the hospital, and any cancelled surgeries. The outpatient data collection includes; # patients seen, what procedures occurred, patient wait time, if revenue is generated, patient satisfaction of services, and any readmissions. Reports will be generated to management on a semi-annual for the next 2 years. (Pilot data will be presented in September 2008.)

There will be ongoing evaluation of this project for an expanded role of oncology nurse practitioners for an acute care clinic. With time, if this clinic is well utilized, it may indicate to hospital administration a need to extend additional patient services and access for health care for the oncology patient.

ABSTRACT 3517

Title: CANCER PATIENTS WITH NEUROPATHIC PAIN SYMPTOMS EXPERIENCE MORE SEVERE PAIN THAN PATIENTS WITH NON-NEUROPATHIC PAIN SYMPTOMS

Focus Area: Research Study

Authors: Cindy Tofthagen, MSN, ARNP, AOCNP®, University of South Florida, Tampa, FL; Susan C. McMillan, PhD, ARNP, University of South Florida, Tampa, FL

Surgery, radiation, and chemotherapy are known causes of neuropathic pain in cancer patients. Neuropathic pain is thought to be more difficult to control than other types of pain. Differences in pain levels and pain interference between cancer patients with neuropathic pain symptoms and those without neuropathic pain symptoms have not been evaluated.

The purpose of this study was to explore differences in the experience of cancer patients with neuropathic pain symptoms compared to cancer patients with pain who are not experiencing neuropathic symptoms.

The Theory of Unpleasant Symptoms provides the theoretical framework for this study. Etiology is a physiological factor, directly influencing the pain experience. Patients may experience more than one type of pain. Painful neuropathic symptoms negatively influence physical performance and emotional well-being.

Outpatients with cancer pain (n=170) at Moffitt Cancer Center completed the Brief Pain Inventory. Participants were divided into two groups, those who described their pain using at least one neuropathic descriptor—burning, numbness, tingling, or electric-like (n=75)—and those who did not use any neuropathic descriptors (n=95). This cross-sectional, descriptive study examined differences in pain levels, pain interference, and pain characteristics between the two groups using t-tests and chi-squares.

Patients who described their pain using at least one neuropathic descriptor had significantly higher levels of current pain, worst pain, and least pain than patients who did not use neuropathic descriptors. Pain interference with general activity, mood, walking ability, normal work, relationships, and sleep were significantly higher in those with neuropathic symptoms. Patients with neuropathic symptoms were more likely to describe their pain as continuous rather than intermittent and had been in pain an average of 2.5 times longer than those who did not use neuropathic descriptors.

The results of this study indicate that patients with neuropathic symptoms have higher pain levels, suffer from pain longer, and have more difficulty performing their usual activities than do patients without neuropathic symptoms. An aggressive approach to the management of neuropathic pain in cancer patients including medical management, referrals to neurology, physical therapy, and occupational therapy is warranted. Research efforts must focus on developing new interventions to relieve neuropathic pain.

ABSTRACT 3518

Title: THE BREAST CARE PROGRAM: A MODEL FOR MULTIDISCIPLINARY, HIGH-RISK HEREDITARY BREAST CANCER EVALUATION FOR INDIGENT PATIENTS AND THEIR FAMILIES

Focus Area: Clinical/Evidence-Based Practice

Authors: Wendy Vogel, MSN, FNP, AOCNP®, self-employed, Kingsport, TN; Deborah Pencarinha, CGC, Wellmont Health Systems, Kingsport, TN

Numerous high-risk breast cancer patients are unaware of or unable to afford access to genetic counseling, testing, and appropriate medical follow-up and education. The oncology Advanced Practice Nurse (APN) is uniquely suited to meet the healthcare and educational needs of persons with a genetic predisposition for cancer.

The Breast Cancer Awareness, Risk Assessment and Evaluation (Breast CARE) program was established by an oncology APN and a genetic counselor to help identify, counsel, and provide appropriate management for high-risk indigent patients.

Funding and support for the Breast CARE program was elicited from the Susan G. Komen local affiliate, local hospital system, and health department. The Breast CARE Clinic is held six times per year and the oncology APN provides risk assessment, physical exam that included clinical breast exam, education about self breast exam, referral for free mammogram, help with obtaining free or low cost Tamoxifen as indicated, general cancer prevention and management recommendations, referral for other appropriate screening tests as indicated, and help with obtaining free or low cost prophylactic surgery for breast and ovarian cancer. The genetic counselor provides testing and counseling. Patients are referred to a hereditary breast cancer support group supported by the Breast CARE program. The Breast CARE program outreach included professional education for health care providers, public education for rural communities, less educated patients, and high-risk ethnic populations, and a support group for patients and family members identified as high risk based on family history or genetic mutations.

Approximately 4500 individuals were educated/served in the first year of the Breast CARE program. A total of twelve patients were seen for 17 visits. Nine patients pursued BRACAnalysis. Four BRCA carriers were identified and three patients were given "true negative" results. All BRCA positive patients identified in the Breast CARE clinic continue to receive help in obtaining appropriate medical management at low or no cost through donated services, local grants, pharmaceutical indigent programs, and state-funded programs.

The Breast CARE Program is a successful model of an oncology APN and genetic counselor collaborating to provide education, genetic counseling and testing, and medical management options for indigent patients suspected to have a hereditary predisposition for breast cancer.

ABSTRACT 3519

Title: DEVELOPING A COMPREHENSIVE BMT SPECIFIC ICU TRAINING PROGRAM FOR COMPETENT BMT NURSES

Focus Area: Education

Author: Christine Rimkus, RN, MSN, AOCN®, Barnes-Jewish Hospital, St. Louis, MO

Clinical Nurse Specialists are often the primary educators for oncology nurses in the hospital setting. Having an Intensive Care Unit (ICU) on a floor presents unique challenges for education and competence.

The BMT unit of a comprehensive cancer center began accommodating the ICU patients within the established BMT unit. A small group of nurses were given intensive care training. More ICU-trained nurses were needed as bed capacity in the ICU increased. The challenges of training competent BMT nurses in intensive care skills included: limited opportunities for clinical experiences due to fluctuating BMT ICU census; suboptimal clinical opportunities in other ICU's with non-oncology patients; and the BMT staff's discomfort level in mastering ICU skills.

The Clinical Nurse Specialist (CNS) developed a training program that included BMT-specific critical care education and clinical training in a human simulator laboratory. Components of the class included: pulmonary physiology and ventilator basics with trouble shooting strategies presented by a respiratory therapist; a critical care policy and procedure game; review of BMT specific complications that lead to the need for intensive care such as sepsis and intracranial hemorrhage. These complications were then presented in the human simulator laboratory. The first session was a preceptor training program designed for the small group of nurses who currently cared for the BMT ICU patients. This group was educated on precepting skills for experienced nurses. Subsequent groups of RN's were chosen based on their desire to learn ICU and their experience as a BMT RN. Didactic education was followed by clinical experience with a BMT ICU preceptor. Continual ICU education is now a part of yearly Skills Days and incorporated into the overall education plan for all unit staff.

Since the inception of this orientation program, 39 staff on the BMT unit have been trained. This is an increase from the original 10 ICU trained RN's. Staff evaluation of the program was very positive. Standards of care are now being developed for the BMT ICU so that all ICU trained staff will maintain consistent practice.

Although it is difficult, incorporating an ICU into an existing oncology unit is possible with committment and support for staffing challenges. Increase in acuity will inevitably impact the budget and must be considered.

ABSTRACT 3520

Title: DISCHARGE EDUCATION CLASS: HELPING TO EASE THE BURDEN OF BMT CAREGIVERS

Focus Area: Education

Authors: Christine Rimkus, RN, MSN, AOCN®, Barnes-Jewish Hospital, St. Louis, MO; Beth Duisen, BSN, Barnes-Jewish Hospital, St. Louis, MO; Donna Gallagher, BSN, Barnes-Jewish Hospital, St. Louis, MO; Pam Austin, BSN, OCN®, Barnes-Jewish Hospital, St. Louis, MO

The Clinical Nurse Specialist (CNS) is the person who identifies patient education opportunities in the clinical setting. He/she also attempts to encourage staff growth and development. Several staff nurses on the

BMT unit identified a desire to improve discharge teaching for families of BMT patients. The CNS facilitated a plan to involve several staff members in developing a class for families.

Caring for Blood and Marrow Transplant (BMT) patients post discharge can be overwhelming for caregivers as well as patients. Patients and caregivers often request information about infection prevention, nutrition and how to contact their doctor. The answers to these questions are not necessarily based on sound evidence. The Clinical Practice Review Committee at a large comprehensive cancer center developed guidelines for educating patients and their families about evidenced-based protective measures.

In an attempt to ensure that all patients receive consistent information, two BMT nurses, the BMT Discharge Coordinator and the Clinical Nurse Specialist (CNS) (referred as “the group”) discussed the need to offer a discharge preparation class to caregivers as they are responsible for patient care in the home. Prior to implementing the class, the Discharge Coordinator queried caregivers and patients about their interest and willingness to attend a discharge class. Response was positive. The group developed a weekly one hour discharge education class. Components of the class included: basic care needs, infection prevention strategies, nutrition and hydration basics, fatigue management, community resources, and health care navigation.

The first class had 26 participants. Even though the class was intended for caregivers, patients attended and enjoyed the class. Written evaluation of the class was very positive. The participants felt that the content was very helpful and not too overwhelming. Feedback from follow-up phone calls validate that the discharge class has been helpful for patients and caregivers to safely transition to home.

This class has been very helpful for patients and their families to alleviate some of the fear associated with discharge and can be utilized in many different oncology settings. We are now in the process of evaluating the need to separate the patient populations into an autologous transplant class and an allogeneic transplant class.

ABSTRACT 3522

Title: BREAST CANCER SURVIVORSHIP CLINIC: A NURSE PRACTITIONER LED MODEL

Focus Area: Administration/Leadership Development

Authors: Whitney Pritham, RN, NP, University of New Mexico, Albuquerque, NM; Anjanette Cureton, PsyD, University of New Mexico Cancer Center, Albuquerque, NM; Melanie Royce, MD, University of New Mexico Cancer Center, Albuquerque, NM

The growing number of cancer survivors is creating an awareness and demand for healthcare organizations to address survivorship issues. Cancer survivorship care has evolved into a specialty that emphasizes health promotion, disease prevention, and patient satisfaction. Therefore, survivorship care is a natural setting for advanced practice nurses to be leaders.

We present a model for a breast cancer long term survivorship clinic led by a nurse practitioner.

Our patient population includes breast cancer survivors at least 5 years past their diagnosis. The intent of the clinic is to establish a Treatment Summary and Survivorship Care Plan for these patients. In addition, using a multi-disciplinary approach the patient is assessed for any long term sequelae from their diagnosis of breast cancer or from the treatment of their breast cancer. Patients are followed on a routine annual basis.

Since the establishment of this clinic we have experienced a three-fold effect. First, breast cancer survivors are now being followed in our clinic after the 5 year mark instead of being discharged and followed only by their primary care provider. Secondly, this nurse practitioner led clinic has allowed our oncologists more time for active care patients and new patients. Thirdly, we are addressing the issues of long term survivors and providing opportunities do further studies on survivorship issues.

This poster will cover the development, design, and outcomes of this survivorship clinic.

ABSTRACT 3528

Title: GROUP VISITS: A MODEL FOR THE DUKE MEDICINE BREAST CANCER SURVIVOR CLINIC

Focus Area: Clinical/Evidence-Based Practice

Author: Kathy Trotter, RN, FNP, Duke University School of Nursing, Durham, NC

Advanced Practice Nurses can be as important leaders in survivorship care. In this innovative long term follow-up breast cancer clinic, the Nurse Practitioner is both the lead facilitator for the small group session, as well as primary clinician in this multi-disciplinary team of APN, physical therapist, nutritionist and social worker. Both the team approach in this innovative clinic for survivor care as well as enhanced patient empowerment are key points to this model.

Previously, focus group interviews from Duke oncology patients had revealed that though patients were pleased with actual oncology treatment and care, they did not favorably rate follow-up care, citing long waits and not addressing long term side effects from cancer and treatment. Wait time for newly diagnosed patients was also increasing significantly.

In this clinic, six women who are 3 years or more post acute phase treatment, arrive at the same time, and do not wait in waiting room, but come into the group space area to begin care. The room is set up with a circle of chairs and 2 vital signs stations. Women take their own vital signs and mark them on their long-term care plan, and by the end of the visit, write Personal Goals for the year.

The 45-55 minute group session, adapted from the Centering Healthcare Institute model, is facilitated by the NP. The session includes all patients as well as their significant others, the nutritionist, social worker and physical therapist. After the session, the patients receive individual services needed including NP exam, mammogram, individual consults from nutritionist, physical therapist or social worker.

Data showed 100% satisfaction with the organization of their care in this way, with 94% responding that they learned some new things during the session, and 100% revealed that the long-term care plan will be helpful.

This model of survivor care demonstrates strong patient satisfaction with the group care model and the services offered. Further research is suggested both on the use of the model and its effects on patient outcomes and systems outcomes such as financial viability.

ABSTRACT 3529

Title: EXERCISE MOTIVATION FOR BREAST CANCER RISK REDUCTION

Focus Area: Research Study

Author: Maureen Wood, RN, ANP, AOCN®, St. Luke’s Hospital, Chesterfield, MO

The International Agency for Cancer Research estimates that 25% of worldwide breast cancer cases among women are due to being overweight or obese and having a sedentary lifestyle. Less than 50% of women participate in physical activity as recommended by the Centers for Disease Control and the American College of Sports Medicine and more than 25% are not active at all. Perceptions of increased personal risk, greater perceived benefits, and fewer perceived costs have been have been shown to influence exercise participation.

The purpose of this study is to determine whether risk and/or health and accurate exercise information will motivate a woman to exercise and to gain a deeper understanding of how risk perception impacts exercise behavior based upon the theoretical framework of protection motivation theory.

The protection motivation theory proposes that two processes (threat appraisal and coping appraisal) predict protection motivation, and is reflected in an individual’s intention to perform a recommended protective health behavior such as exercise.

A posttest experimental randomized block design will be used in this study. Using the Gail risk model, a woman will be blocked by her Gail risk status into one of two groups, high risk or average risk, and then randomly assigned to one of two treatments: experimental (specific written health and exercise knowledge information) or control (general written health information) to determine which treatment is more effective in motivating women (high risk versus average risk) to exercise over the course of a three month period. A convenience sample of 92 women, 40 to 65 years old, who are not currently participating in any regular physical activity > 2 times per week and are free of any chronic medical or physical limitations will be eligible for participation. A woman will be excluded if she has a present and/or past history of breast cancer or depression. Descriptive, simultaneous and hierarchical multiple regression statistics will be used for data analyses.

Findings from this study will help to develop appropriate nursing interventions aimed at reducing breast cancer risk in women.

ABSTRACT 3533

Title: PRACTICE MODEL FOR ONCOLOGY NURSE PRACTITIONERS IN AN ADULT MEDICAL ONCOLOGY CLINIC: ACCOMODATING URGENT CARE NEEDS AND ONCOLOGIC EMERGENCIES IN A BUSY OUTPATIENT CLINIC

Focus Area: Administration/Leadership Development

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In 2003 the Oncology Nursing Society (ONS) delineated scope and standards of practice for oncology advanced practice nurses (Jacobs, 2003). The Oncology Nursing Certification Corporation began offering certification to nurse practitioners in 2005. The ONS published Oncology Nurse Practitioner (ONP) Competencies (2007) emphasizing the unique practice of the specialty and the complex needs of cancer patients. ONP's are exploring various roles and models of care. On a recent review of the ONS ONP Special Interest Group web-site, a question regarding managing unscheduled patients in an outpatient clinic was asked. There were no responses.

The model described in this presentation addresses how ONP's can meet urgent care needs and provide for unscheduled visits in the outpatient clinic.

In our community hospital-based practice we have 8 adult Medical Oncology/Hematology physicians with 5 ONP's. In the primary clinic site 50-75 patients are seen a day, with 45 patients treated in the infusion center. The ONP's role has developed to maximize physician resources. It allows the oncologist to see more new patients, and to maintain their clinic schedules with minimal interruptions. Administration facilitates this by supporting ONP's at each site, without placing an emphasis on productivity. The goal is to have one ONP available for triage patient needs at each site. The ONP has a schedule of follow-ups from the various physicians, with 30-minute time slots to allow for flexibility. Physician consultation is available as needed. The ONP's work closely with triage RN's to refill prescriptions, review labs and manage symptoms. Patients in the clinic develop drug reactions, are symptomatic during treatment and have oncologic emergencies, all requiring rapid assessment and intervention.

The ONP's manage side effects and provide interventions in the clinic which results in decreased hospitalizations. Patients are seen in a timely manner and report greater satisfaction that their concerns are addressed.

Dissatisfaction for the ONP includes the lack of follow-up on patients seen episodically, an unpredictable clinic schedule and potential burnout from seeing sicker patients. This model may not be suitable for the novice ONP but is satisfying in the variety of challenging cases seen.

ABSTRACT 3539

Title: ANEMIA MANAGEMENT USING ERYTHROPOIESIS STIMULATING AGENT (ESA) AND IRON THERAPY: DEVELOPMENT AND IMPLEMENTATION OF AN EVIDENCE BASED LEARNING NEEDS ASSESSMENT

Focus Area: Clinical/Evidence-Based Practice

Authors: Melissa Grimm, RN, CNS, Mercy Medical Center, Canton, OH; Kathryn Spiegel, RN, PhD, Watson Laboratories, Morristown, NJ; Jo Sclafani, PharmD, Watson Laboratories, Morristown, NJ

Advanced practice nurses have an important role in the development and management of the algorithm for chemotherapy-related anemia. While ESA therapy is an effective treatment for chemotherapy-related anemia, approximately 30% to 50% of patients receiving ESA therapy do not achieve a clinically meaningful hemoglobin (Hgb) response. Four recent prospective, randomized studies in patients with chemotherapy-related anemia demonstrated an improved response to ESAs with IV iron supplementation (Auerbach 2004, Henry 2007, Bastit 2008, Pedrazzoli 2008). In addition, the National Comprehensive Cancer Network (NCCN) guidelines recommend conducting iron studies prior to initiation of ESA therapy and state that IV iron appears to have superior efficacy compared to oral iron. A 5% sample size of Medicare data from 2001 indicated that 80% of dialysis patients have routine iron studies and 70% receive IV iron therapy compared to 25% and < 10% of oncology patients respectively.

As a result of these reported discrepancies, a learning needs assessment was developed to determine oncology and nephrology nurses' knowledge of iron laboratory values and treatment of iron deficiency anemia.

A total of 165 nurses attending Oncology Nursing Society (ONS, n=85) and American Nephrology Nurses Association (ANNA, n=80) chapter meetings were surveyed between September 2007 and June 2008. Data was collected and a 2-sample Z test was used to determine differences between the two groups. Eighty-nine percent of the respondents were RNs working in a variety of clinical settings including education, quality improvement and inpatient/outpatient treatment centers.

Twenty-two percent of the oncology nurse respondents use ESA and oral iron to manage anemia compared to 4% of the nephrology nurses ($p < .0002$). Eighteen percent of oncology nurses use ESA and IV iron to manage anemia compared to 79% of nephrology nurses ($p < .00001$). Monitoring of iron indices also differed significantly between the two groups. The majority (71%) of oncology nurses did not order iron labs prior to starting ESA therapy despite published guidelines to the contrary.

Based on these survey results, iron deficiency is underdiagnosed and undertreated in oncology and evidence-based nursing educational programs are greatly needed.

ABSTRACT 3540

Title: DEVELOPING A PEDIATRIC CHEMOTHERAPY INFUSION PROGRAM FOR PROTON CLINIC PATIENTS

Focus Area: Clinical/Evidence-Based Practice

Author: Mary Allen, RN-C, MSN, OCN®, AOCNS®, Bloomington Hospital, Bloomington, IN

In 2004, Midwest Proton Radiotherapy Institute (MPRI) treated its first patient in Bloomington, Indiana. MPRI was the third proton clinic to open in the United States. Patients come from all over the world to be treated at MPRI. Many of these patients have been pediatric oncology patients. Our hospital has treated pediatric oncology patients, but never for chemotherapy infusions. Instead, the patients have to travel to Indianapolis for chemotherapy infusions and then back to Bloomington for proton therapy, which is a challenge. This was a great opportunity for the CNS to develop a pediatric chemotherapy infusion program with an interdisciplinary group.

The purpose of Pediatric Chemotherapy Infusion Program was to provide a competent and convenient oncology service for those families who were already traveling far from home. We wanted to develop a program so the patients could receive all of their treatments in one town.

The interdisciplinary group, which consisted of a CNS, pharmacists, staff nurses, physicians, social worker, administration, case manager, and MPRI staff, was able to develop the program and have the nurses trained within a year. The pediatric nurses were excited and along with the adult oncology CNS, they attended an APHON Pediatric Chemotherapy and Biotherapy Course. We met regularly with the staff at the proton clinic to establish the needs of the pediatric oncology patients.

Evaluation is ongoing. We just finished treating our first pediatric oncology patient. The nurses were well prepared. The mother and five year old autistic child were very excited to not have to drive to Indianapolis weekly. We kept nursing staff consistent to make the patient and mother more comfortable. The CNS worked with the pediatric staff very closely with each treatment. The CNS co-cared with the pediatric nurses to assist with laboratory values, medication calculations, side effect management, and patient/family education and support.

The oncology CNS played an integral part in developing this program in order to improve the families/patients' functional status and help them economically by providing all oncology services in one town. This program will continue to grow and we will continue to evaluate as we treat more patients.

ABSTRACT 3541

Title: OVERCOMING BARRIERS TO SAFE HANDLING IN A CORRECTIONAL CARE SETTING

Focus Area: Clinical/Evidence-Based Practice

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Research shows exposure to hazardous agents such as chemotherapy has led to acute and chronic medical conditions such as skin, eye, and throat irritation, cancer, organ damage, and reproductive issues. Guidelines and recommendations for practices to reduce the risk of hazardous agent exposure to nursing and pharmacy staff have been published by the Oncology Nursing Society (ONS), the Occupational Safety and Health Administration (OSHA), National Institute for Occupational Safety and Health (NIOSH), and the American Society of Health System Pharmacists (ASHSP). Adherence to these guidelines varies among healthcare workers who prepare and administer chemotherapy agents. Barriers have been identified including lack of knowledge, lack of availability of appropriate personal protective equipment (PPE), peer pressure, and decreased efficiency when following recommendations. In a correctional care setting these barriers can be more difficult to overcome related to security protocols and the physical barriers in a prison setting.

This poster will present the process of implementing the guidelines in a maximum security correctional system hospital providing oncology care in both the inpatient and outpatient settings. The process involved presenting the above guidelines to hospital administration, developing policies and procedures, equipment evaluation, staff education, and continued reinforcement and revision of practices.

The Oncology Clinical Nurse Specialist (CNS) for the correctional care hospital reviewed the literature to determine the current evidence for the best practices to protect staff, patients, and the environment. Current practice was analyzed as well as a review of occurrence reports related to hazardous agents such as accidental spill reports. A synopsis of the evidence was presented to hospital administration with recommendations for implementation. Education of the nursing staff was provided by the CNS in various forms including unit based in-services, online programs, skills fair, and the ONS Chemotherapy and Biotherapy Course.

Ongoing follow-up through observation to identify adherence issues and review of equipment performance has identified further areas for improvement.

CNS's are key to monitoring outcomes and continual review of new evidence to guide practice is necessary to provide the best knowledge base for education of nurses working with hazardous agents.

ABSTRACT 3542

Title: LYMPHEDEMA PREVENTION EDUCATION: NURSE PRACTITIONER CLINIC TO PROVIDE PRE-SURGICAL EDUCATION FOR PATIENTS UNDERGOING AXILLARY SAMPLING FOR BREAST CANCER

Focus Area: Education

Author: Lori Ranallo, RN, MSN, ARNP-BC, University of Kansas Hospital Cancer Center, Westwood, KS

Lymphedema remains a potential complication of axillary sampling for breast cancer treatment despite less radical surgical procedures. It is estimated that as many as 38% of patients having axillary surgery will develop upper extremity lymphedema in their lifetime. This complication can be very concerning to the patient; however, a lack of knowledge regarding the causes and development of this condition can be even more distressing. Providing comprehensive pre-surgical education regarding the causes of lymphedema, obtaining a baseline measurement of the upper extremities and providing post-surgical range of motion exercises may decrease the anxiety regarding this potential complication.

An evaluation of the current education process at our facility revealed a lack of comprehensive education material regarding post-surgical exercises, lymphedema development, and preventative measures to reduce the risk of lymphedema in the breast cancer population. At the University Kansas Hospital Cancer Center a nurse practitioner clinic was formed to address this problem.

Patients receiving surgical treatment for their breast cancer see the nurse practitioner for a preoperative lymphedema appointment. Baseline measurements of the bilateral upper extremities are obtained as well as a baseline upper extremity range of motion and hand grip strength evaluation. Education regarding the causes and stages of lymphedema are discussed. Activities to avoid, skin care and nutrition are also discussed. Post-surgical exercises are demonstrated and a detailed handout is provided. Pamphlets from the American Cancer Society; "Exercises After Breast Surgery" and "What Every Woman Facing Breast Cancer Should Know About Lymphedema" are provided. A referral to Reach to Recovery, a program provided by the American Cancer Society is initiated at this appointment. Follow-up appointments are made at 6 months, 1, 2 and 3 years for continued surveillance for lymphedema development or PRN for complaints of swelling.

The goal of this specialized clinic is to provide comprehensive education for the patient facing breast cancer surgery and in turn decrease the incidence of lymphedema complications in this population.

The next step in providing comprehensive lymphedema education to our patients will involve collaboration with inpatient providers on the oncology service to ensure education will be consistent between the inpatient and outpatient settings.

ABSTRACT 3546

Title: QUALITY OF LIFE AND PSYCHOLOGICAL OUTCOMES IN CHILDREN UNDERGOING TREATMENT FOR LEUKEMIA

Focus Area: Research Study

Author: Julie Fitzgerald, RN, MA, Kean University, Union, NJ

Acute lymphocytic leukemia (ALL) is the most common form of leukemia among children and comprises one third of pediatric malignancies. The five year survival rate for pediatric leukemia is approximately 81% (Reis, 2007). There are conflicting findings regarding the psychological health of childhood cancer survivors (Glover, Byrne, Mills, Robinson, Nicholson, Meadows et al., 2003; Hudson, Mertens, Yusai, Hobbie et al., 2003; Parry & Chesler, 2005; Zebrack & Chesler, 2002). The conflicting findings regarding the long term health outcomes of survivors, points to the need to identify factors that may contribute positive or negative adaptation.

The maintenance phase of treatment usually lasts 2-3 years and children experience many side effects of treatment and disruptions in their daily life. Few studies examine psychological adaptation during this phase of treatment, when ineffective adaptation may begin. The APN, will be assessing the child for side effects of treatment and family functioning.

The aim of this study is to examine the relationship between quality of life, family functioning and psychological adaptation.

The Roy Adaptation Model is the theoretical framework.

A descriptive correlational design was used to examine adaptation in 25 school age (ages 6-13) with leukemia. Children completed the Peds QL 3.0 Cancer Module (Varni, et al., 2002), Revised Childhood Manifest Anxiety Scale (Reynolds & Richmond, 1985) Peds QL 3.0 Cancer Module (Varni, et al., 2002), Family APGAR (Austin & Huberty, 1989) and parents completed the Eyberg Behavior Inventory (Eyberg, 1992) and The Social Competence Inventory (Rydell, Hagekull & Bohlin, 2000). Pearson product moment correlations were performed on all variables using Statistical Package for the Social Sciences (SPSS Inc., Chicago, IL).

The importance of quality of life in relation to psychological adaptation was supported. Consistent with Roy, poorer physiological health was associated with higher levels of worry and anxiety. Positive family functioning and better quality of life was associated with social competence. Nausea and pain were the most frequently identified problems for children receiving chemotherapy. Nurses need to be diligent in assessing and treating for side effects of chemotherapy to promote healthy psychological adaptation to this illness.

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