

compliance leading to unsafe outcomes. Although many patients and caregivers experience distress secondary to diagnosis and treatment, education may reduce this anxiety and help them to better manage side effects through self care management and encouragement of the same by the caregivers. Education should be tailored to suit the individual. The need for formalized pre-stem cell transplant education was recognized to not only alert patients and caregivers about the treatment regimen, but also to relieve patient and caregiver distress in order to improve compliance to promote safe outcomes. Patient distress levels were evaluated through the use of the National Comprehensive Cancer Network Distress Thermometer Scale. Ten participants were asked to rate their distress levels on a scale of one to ten pre and post education to validate the necessity of this education in the decreasing of anxiety. Eight patients demonstrated a decrease in distress, one demonstrated an increase, and one no change. Acquired knowledge related to the information as well as the change in distress levels was evaluated through verbal post testing and discussion.

414

70% ETHANOL LOCKS IN THE ROLE OF PREVENTING/TREATING CATHETER RELATED BACTERAEMIA

Sanders, J.M. Christchurch Hospital, Christchurch, New Zealand.

Catheter related bacteraemia (CRB) is a major source of morbidity and mortality in patients undergoing intensive cytotoxic therapy who are immunocompromised and neutropenic. There have been many initiatives to prevent these infections, but CRB still remains a major complication of indwelling tunnelled central venous catheters.

Ethanol at a concentration of 70% used as an antiseptic agent can be introduced into the internal lumen of the central venous catheter to reduce the incidence of CRB, it has also been used successfully as a treatment of CRB in conjunction with appropriate antimicrobial therapy.

There have been two retrospective studies reporting the use of ethanol in the treatment of CRB and one randomised study reporting the use of ethanol in the prophylactic setting.

Presented will be the evidence supporting the use of ethanol locks, its efficacy in the prevention and treatment of CRB, the safety data and our experience using ethanol in our bone marrow transplant unit.

415

CARING FOR THE MORBIDLY OBESE HEMATOPOIETIC STEM CELL TRANSPLANT PATIENT: NURSING INTERVENTIONS AND IMPLICATIONS

Blue, K., Neumann, J., Giralt, S., Switzer, M. The University of Texas MD Anderson Cancer Center, Houston, TX.

Problem: Obesity is one of the largest public health crises in the United States. Obese individuals are at higher risk for major health complications, including cardiovascular disease, diabetes, and impaired physical mobility. When these co-morbidities are coupled with a cancer diagnosis and treatment, such as Hematopoietic Stem Cell Transplant (HSCT) mortality greatly increases. In 2006, at a comprehensive cancer center, fourteen percent of 107 patients who received allogeneic HSCT for acute myeloid leukemia (AML) were considered morbidly obese (Body Mass Index >35). Of these obese patients, sixty percent died within one year of HSCT. When compared to a thirty-eight percent mortality rate for non-obese patients within the same cohort, the findings were alarming.

There is little discussion in the literature addressing the specific needs of morbidly obese patients, and consequently, no consistent plans of care are available to guide the patients' transplant course. Transplant takes a toll on the patient, the caregivers, as well as the nursing staff providing care. **Intervention:** In response to the identification of the high mortality rate and special needs of the morbidly obese HSCT patients, nurses developed a multi-disciplinary plan of care in an effort to generate more successful outcomes.

Key pieces of this plan of care included facilitating a multi-disciplinary care conference prior to the patients' admission to outline

transplant risks and the unit's goals/expectations. Nurses collaborated with the medical team, dietitians, physical and occupational therapists, as well as the patient to set short term goals to meet long term objectives. Education was frequently reinforced to patients and family members. A core group of nurses assigned to the patients promoted continuity of care. **Findings:** A case study will outline specific nursing interventions implemented at a comprehensive cancer center that guided the care of a morbidly obese allogeneic HSCT patient. It will illustrate how the use of these interventions can promote the health and well-being for both the morbidly obese patient as well as the staff nurses.

416

MULTIDISCIPLINARY INTERVENTION OF ADMISSION PLANNING

Larson, S.M. Barnes-Jewish Hospital, St. Louis, MO.

Background and Purpose: A growing inpatient population of Bone Marrow Transplant and newly diagnosed Leukemia patients poses difficulties for accepting daily scheduled and unscheduled admissions. These appropriate units typically have limited available hospital beds. In order to accept all patients needing medical care for this patient population, more planning was therefore necessary.

Objectives: It was necessary to have representation from all pertinent team members in a multidisciplinary approach to discuss the Bone Marrow Unit and Leukemia Service census as well as the upcoming potential discharges. It was essential to identify if certain patient admission dates were to be delayed to allow admissions of higher priority patients. **Method:** Outpatient Nurse Coordinators arrange for the patient admission and utilize a computer based document to identify the admission date, patient name, diagnosis and therapy to be given. Routinely, no more than two to three patients are scheduled for any given day. A weekly admission meeting was created to allow representation from the Outpatient Nurse Coordinator Team, Inpatient Nurse Coordinator Team, Pharmacy, Inpatient Lead Charge Nurses/Management Teams, and Data/Study Coordinator Team. Potential discharges are identified to determine whether there will be bed availability to admit the scheduled admissions for the present week as well as the following week. If it is decided to delay any given patient, the appropriate Outpatient Nurse Coordinator will arrange and notify the patient about the delay and will be informed that the admission will not be delayed again. **Results:** This "preplanning" of admissions has improved the ability to have all patients receive the care needed. Patients have also reported an increased satisfaction in the improvement of this process and state they understand the importance of allowing the more critical/ill patients be admitted above their scheduled admission.

417

PROPHYLACTIC AND TREATMENT REGIMENS FOR MUCOSITIS

Blackstock, J.L., Frey, M.A. Duke University Medical Center, Durham, NC.

Ulceration of the oral mucosa, mucositis, is a frequent complication found in the pediatric transplant patient. Mucositis is caused by conditioning regimens including cytotoxic agents and radiation. The severity of mucositis ranges from mild mouth sores to extreme mucosal erosion. The ulcerations caused by mucositis can lead to extreme pain and interruption in the patient's nutrition which may contribute to an increase in morbidity. An intact oral mucosa can provide a barrier to pathogens. Due to the level of immunosuppression in transplant patients, breakdown of the mucosa provides an opportunity for bacteria, viruses or fungi. Mucositis also increases the risk for a superficial infection. The Duke University Pediatric Blood and Marrow Transplant Program developed a prophylactic mouth care protocol to help decrease, or possibly eliminate, complications caused by oral mucositis. This regimen is started pre-transplant during the admission process and is sustained throughout the hospital stay. Patients and families are educated on the importance of being compliant with meticulous mouth care. The purpose of this poster will be to describe the Duke Pediatric Blood and Marrow Transplant Mouth Care Protocol and its importance in the transplant process. This will include the prophylactic and treatment

regimens as well as the nursing care protocols for the patient with severe mucositis.

418

AN EDUCATED PATIENT IS A SAFE PATIENT

Breen, A.W. Seattle Cancer Care Alliance, Seattle, WA.

The issues of limited medical literacy and patient anxiety are addressed in Seattle Cancer Care Alliance Patient and Family Education program for bone marrow transplant recipients and caregivers. Academic sophistication can not be a requirement for patient safety. Instead, the Patient Centered, Patient and Family Caregiver Education Program, utilizes a mix of teaching methods, learning opportunities, information sources, and communication approaches to facilitate caregiver role training and to impart patient knowledge. Each step in the process emphasizes patient safety. Patient, caregiver, and family education begins during the first contact with our Center and continues after departure. Principles of social learning theory informed by a multiple intelligence approach are the basis for creating patient centered education. Orientation information is available in various formats including DVD, VHS, and interactive web programming. Information is also offered in a pre-transplant manual, coloring books, specialty booklet for teens, transplant DVD, handouts, and classes. Formal 1:1 teaching sessions include such topics as clinic orientation, line care, chemotherapy teaching, and discharge/transition planning. Classes are also offered in key topics such as Food Safety, Managing Care at Home, and Departure. Teaching methods include traditional lectures, role playing, reviewing typical clinical scenarios, group discussions, and an examination of critical topics. Participants are quizzed orally or in writing. All elements of the program are routinely evaluated after each class via a feedback section in the Patient Resource Manual, by Patient Advisors, and from patient questionnaires. Class ratings and patient questionnaires are consistently high. The presentation will include samples of the curriculum from the comprehensive program, DVDs, manuals, and teaching content. An overview of the patient education trajectory from first contact to departure will be presented. Program evaluation data and ongoing quality improve initiatives will be shared.

419

MAKING HEART SUCCESS: EDUCATING NURSES ABOUT A HEART FAILURE PROGRAM

Knape, C., Martin, A., Colleen, L., Ramos, J., Schuling, E., Granada, M. The University of Texas MD Anderson Cancer Center, Houston, TX.

Oncology patients often have co-morbid conditions in addition to their cancer diagnoses which the healthcare team must carefully manage. One such condition is heart failure. A program called Heart Success, an institutional multi-disciplinary program for heart failure patients, is being trialed on an in-patient stem cell transplant/cellular therapy unit. The Heart Success Program is in place to identify, monitor, and educate patients who have heart failure with the goals of improving clinical outcomes and quality of life as well as decreasing lengths of stay and hospital admissions due to heart failure exacerbation.

A unit-based Heart Success team comprised of selected clinical nurses was created to provide the needed education for other nursing staff and to serve as super-users to whom other nurses can refer for help enrolling and teaching patients in the program. Heart success team members taught other clinical nurses on the in-patient stem cell transplant unit the purpose of the Heart Success Program, ways to identify patients who qualify for the program, instructions for enrolling the patient, and appropriate teaching to provide the patient and family. Team members conducted a ten minute in-service for the clinical nurses on the unit and administered a pre and post test to evaluate effectiveness of the teaching. An instructional poster was created as a visual aid for the short in-service and was displayed on the unit for later reference.

Clinical nurses also learned how to use the Heart Success data collection tool and document appropriately as well as how to participate in bi-weekly meetings with cardiology representatives to discuss patients enrolled in the program. Heart Success team

members remain visible on the unit to guide other nurses in Heart Success activities.

Specific outcomes of staff nurse teaching and its impact on the effectiveness of the Heart Success Program in a stem cell transplant/cellular therapy unit will be shared and discussed.

Clinical nurses play a unique and vital role in helping achieve the Heart Success goals of identifying, monitoring, and educating patients who have heart failure.

420

CHARACTERISTICS OF HSCT AND ONCOLOGY PATIENT FALLERS AND THEIR FALLS IN AN AMBULATORY CANCER CENTER

Wickline, M.M. Seattle Cancer Care Alliance, Seattle, WA.

Patient falls are serious events that can cause death and loss of function. HSCT and oncology patients have unique fall risk factors and are often at high risk for injury when they do fall. Once thought to be primarily an inpatient problem, we know that falls do occur in outpatient centers where patient acuity and complexity of offered therapies are increasing.

At the Seattle Cancer Care Alliance, we have tracked all reported falls within our ambulatory care center since 2003. We have performed an in-depth analysis of the characteristics of the fallers and their falls in order to create and maintain the SCCA Outpatient Fall Prevention Program. Our quarterly fall rates are between 0%-0.07% (#falls/#patient visits), with a total of 65 falls (33 HSCT and 32 oncology patients) studied as of October 1, 2007.

HSCT patients who fell had higher incidence of anemia, thrombocytopenia, chronic steroid use and documented peripheral neuropathy than the oncology patients who fell. Oncology patients who fell had a higher incidence of bone metastases or bony involvement than HSCT patients who fell. HSCT patients were more likely to hit their head with a fall and more likely to sustain some kind of injury than oncology patients. HSCT fallers had higher harm scores (from Patient Safety Net® on-line incident reporting) attached to their falls than oncology patients.

Examining the characteristics of patient fallers and their falls has been an important step in developing an Outpatient Fall Prevention Program that is uniquely suited to our patient population.

421

A RETROSPECTIVE ANALYSIS COMPARING THE DIRECT COSTS ASSOCIATED WITH THE USE OF G-CSF ALONE AND G-CSF AND CHEMOTHERAPY IN STEM CELL MOBILIZATION

Wasko, M., Johnson, M., Sirilla, J. Ohio State University Arthur G. James Cancer Hospital and Richard J. Solove Research Institute, Columbus, OH.

According to the literature (Milone et al., 2003), G-CSF alone is considered an adequate mobilization approach with no evidence of a higher risk of neoplastic contamination and offers the advantage of low cost, low morbidity and fast immune recovery.

A retrospective comparison was conducted to confirm research findings of lower costs associated with the use of G-CSF alone versus the use of G-CSF and chemotherapy in stem cell mobilization. The study provided practical evidence of the financial impact of the two types of mobilization methods and provided validation for changes in the standard of care within a large academic medical center's transplant program.

A descriptive study was performed using a convenience sample of 144 patients mobilized with either G-CSF alone or with G-CSF and chemotherapy. The investigation analyzed the following direct costs: G-CSF, chemotherapy, lab work, blood transfusions, home health care, apheresis procedures, stem cell laboratory processing, central venous catheter (CVC) placement, CVC removal, IVPB antibiotics, outpatient visits, inpatient hospitalizations, and pre-transplant evaluations.

The study concurred with the literature that the use of G-CSF alone offers the advantage of lower direct costs as compared with G-CSF and chemotherapy in stem cell mobilization.

The study revealed an increase number of lymphoma patients who, initially, failed mobilization with G-CSF alone; then, proceeded to collect stem cells successfully with G-CSF and