admitting nurse and reinforced throughout HSCT. Posters in each room reinforce the importance of calling for help to avoid falling. We involve family caregivers in monitoring patients' status. Institutional guidelines require nursing staff to assess patients' fall risk at least every twelve hours using the Schmid risk assessment tool. Precautionary measures are implemented if the patient is determined to be at risk. We inform patients about the possible side effects and the potential need for help when toileting in an attempt to maintain their dignity while at the same time keeping them free from harm. We have teamed with the physicians to modify our c-difficile protocol, decreasing the patients' risk of dehydration, fatigue, and frequent toileting. In addition, we have partnered with our pharmacists to identify medications that place our patients at risk for falling and to ensure chemotherapy and diuretics are initiated at times that will be least likely to interfere with the patients' rest patterns. This combination of team members working together has enabled us to decrease our fall rate from June 2006 to June 2007 and maintain the dignity and independence of our HSCT patients while ensuring their safety.

**438 BECOMING A PRIMARY SITE FOR THE RADIATION INJURY TREATMENT NETWORK (RITN): ARE YOU PREPARED?**

**Laub, L.M., Siteman Cancer Center of Barnes-Jewish Hospital/Washington University, St. Louis, MO.**

**Background:** The Radiation Injury Treatment Network (RITN) has been established to provide primary treatment facilities for radiological or nuclear emergencies resulting in hematopoietic system injury or failure. As a primary site for the RITN, Siteman Cancer Center needed to build a comprehensive plan to successfully meet the milestone objectives, as well as to ensure integration of the protocol into the hospital’s own preparedness plan. **Objectives:** To establish Siteman Cancer Center as a primary site within the RITN, the development committee identified four objectives which included: early involvement by senior leadership; collaboration with hospital/university based environmental health and safety programs; coordinated updates to inpatient and outpatient transplant teams regarding RITN milestones and preparedness planning; and outreach to surrounding states within our region by educating teams regarding RITN milestones and preparedness planning.

**Method:** The senior leadership team was actively involved in the initial review of the RITN participation agreements, as well as to requirements associated with becoming a primary site. This early involvement secured the ongoing resources and support that the developmental team needed to build new policy and process. Bringing information about the RITN to the hospital’s broad based environmental health and safety group allowed for efficient integration of the network’s processes into the mass casualty and radiation injury polices, and into the emergency command center that the institution had already in place. Frequent updates brought to both the inpatient and outpatient teams developed the awareness and knowledge of the roles that clinicians would take in the event of this type of disaster. To ensure that regional states within the territory were aware of our preparedness initiatives through the RITN, the governmental liaison to the cancer center was invited to participate in planning efforts. This participation allowed Siteman to reach out to state and regional agencies and make its unique capabilities as an RITN site known.

**Results:** As a Level One Trauma center and part of the National Disaster Medical System, Barnes-Jewish Hospital has a well defined emergency preparedness program. Now as one of the thirteen primary RITN sites, Siteman Cancer Center of Barnes-Jewish Hospital holds a comprehensive clinical and organizational plan for emergencies resulting in hematopoietic system injury or failure.

**439 PASS IT ON**

Harris, L.N., Guess, C.W., Frey, M.A., Kurtzberg, J. Duke University Medical Center, Durham, NC.

Transfer (hand-off) of patient care has been identified as a high risk period for hospitalized patients. In health care there are numerous types of hand-offs including, but not limited to, nursing shift changes, physicians transferring on-call, and temporary re-assignment of patient responsibility for breaks. The JCAHO 2008 National Patient Safety Goals demand the implementation of “a standardized approach to ‘hand-off’ communications, including an opportunity to ask and respond to questions.” In 2005 the Duke Pediatric Blood and Marrow Transplant Unit (PBMTU) Nursing Committee developed a protocol for nursing hand-offs that occur during shift change, with the goals to minimize interruptions and provide complete, concise information to the on-coming nurse. Standardizing the nursing shift change hand-off on the PBMTU was critically important, as the nurses on this unit administer over 19,000 medications and 500 blood products each month. The key component of every shift change is a customized report sheet and safety checklist. This tool provides uniformity in shift change report as all systems are covered, intervascular infusions are identified, labs are reviewed, and doctor’s orders are double checked. A human centered engineering group described the PBMTU nursing hand-off in 2007 as “remarkably efficient and effective”. Their analysis recommends that “the PBMTU shift hand-off among nurses should be treated as a model for other types of hand-offs within the unit and across Duke Medical Center.”

The purpose of this poster is to describe the protocol for hand-offs on the Duke Pediatric Blood and Marrow Transplant Unit.

**440 EFFECTS OF GUIDED IMAGERY ON HEMATOPOIETIC STEM CELL TRANSPLANTATION PATIENTS**

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The present research is a quasi-experimental study based on non-equivalent control group pretest-posttest design, which was purposed to examine the effects of guided imagery therapy on immune cells, fatigue and emotional state in hematopoietic stem cell transplantation patients. For patients admitted to 8-person hospital rooms for hematopoietic stem cell transplantation, we conducted guided imagery therapy for 4 weeks from a week before the hematopoietic stem cell transplantation to three weeks after, and three times per week and 13 minutes each time. The subjects were 37 patients (20 in the experimental group, 17 in the control group) who had received hematopoietic stem cell transplantation at C University Hospital during the period from October 2006 to April 2007.

We measured neutrophils count, total lymphocyte count and lymphocyte count for immune cells. In addition, fatigue was measured with the Piper Fatigue Scale (PFS) modified for this study, and stress was measured with Kim Hyung-sook's tool modified and supplemented for this study.

Collected data were analyzed using SAS through χ²-test, Fisher's exact test, t-test and repeated measures ANOVA. The results are as follows.

1. The total leukocyte count, the neutrophils count and the lymphocyte count decreased until week 1 from the transplantation and then began to increase from week 1 in both the experimental group and the control group, but the experimental group showed a significantly larger increase in the neutrophils count.
2. After the experiment, fatigue increased more in the control group than in the experimental group, but the difference was not significant.
3. After the experiment, stress increased more in the control group than in the experimental group, and anxiety and depression decreased more in the experimental group than in the control group, but the differences were not significant.

According to the results of this study presented above, the guided imagery therapy promoted the recovery of immune cells and reduced anxiety and depression in hematopoietic stem cell transplantation patients. Because guided imagery therapy is convenient and
cost effective, we need to design its contents suitable for hematopoietic stem cell transplantation patients, apply the therapy for a long term, and examine its effects.

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A RETROSPECTIVE ANALYSIS COMPARING INFECTION RATES DURING MOBILIZATION OF STEM CELLS PRIOR TO AUTOLOGOUS TRANSPLANT

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Historically, the Blood and Marrow Transplant (BMT) Program at the OSU James Cancer Hospital mobilized peripheral blood stem cells (PBSC) through the use of granulocyte colony-stimulating factor (G-CSF) plus chemotherapy. At the time of chemotherapy, a venous access device (VAD) was placed. During periods of neutropenia, some patients developed VAD infections requiring a hospital admission and treatment.

In reviewing the literature, several authors (Jillessa, 2003; Toor, 2001; Avery, 2002) documented an increase in infections among patients mobilized with G-CSF plus chemotherapy. G-CSF alone is considered an adequate mobilization approach with the advantages of low morbidity, low cost, and fast immune recovery (Milone et al., 2003). In 2006 the BMT Program began to mobilize PBSCs using G-CSF alone to decrease the infection rate.

A retrospective analysis was completed comparing infection rates of patients mobilized with G-CSF plus chemotherapy and patients mobilized with G-CSF alone transplanted between 2004 and 2006. Infection was defined as an elevated temperature (≥ 100.5 °F) with or without positive blood cultures if treated with antibiotics. For patients mobilized with G-CSF plus chemotherapy, 28/112 (25%) developed an infection as compared to 6/66 (9%) of patients mobilized with G-CSF alone (p value of 0.009). Of the 34 patients who developed an infection, 20 patients were hospitalized and 25 patients had their VAD removed.

In this study, patients mobilized with G-CSF alone had a lower incidence of infection than patients mobilized with G-CSF plus chemotherapy. Since changing to G-CSF alone mobilization, patients do not require a hospitalization. Nursing implications include having the clinic and apheresis nurses play a major role in educating the patients and caregivers on the care of the VAD. Previously, the inpatient staff and/or home health agency nurses taught this at the time of chemotherapy. Our BMT program is continually reviewing ways to improve infections rates among patients during the mobilization process.

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DEVELOPMENT OF AN OUTPATIENT FALL PREVENTION PROGRAM IN AN AMBULATORY CANCER CENTER

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Background: In 2005, our institution was challenged to implement the JCAHO National Patient Safety Goal to reduce the number of patient falls in our ambulatory cancer center. There was little in the literature about falls in cancer patients and nothing in the literature about fall reduction programs for outpatient facilities at the time. We had 18 months of data about the falls that had occurred in our own clinic as well as experience implementing a fall prevention program at our inpatient facility. Intervention: We formed a multidisciplinary team, led by a Clinical Nurse Specialist and including a patient advisor, to examine the problem of falls in our clinic amongst our HSCT and oncology patients and to create a fall reduction program that would be appropriate to our setting. The team met for several months and accomplished the following: developed an outpatient cancer fall risk assessment tool, developed an algorithm for post-fall management, wrote two nursing policies and procedures and one multidisciplinary policy and procedure, wrote two patient education documents and developed an educational plan for the entire clinic faculty and staff to learn about their role in fall prevention. The fall prevention program was implemented in January 2006. All SCCA outpatients are now regularly assessed by RNs for fall risk. Every patient receives written information about fall prevention in the clinic and at home. Every patient that has fallen in the clinic receives an electronic alert in his or her medical record and in the on-line scheduling program. Clinical staff implement risk reduction interventions for all patients, with special precautions for patients screened to be at risk for falling. A standard post-fall algorithm is followed for every fall in the clinic. Outcomes: Since implementation of the fall prevention program, we have not had any repeat fallers. We have seen a sharp decline in the number of falls occurring in the Infusion Room, which previously had the most falls in the clinic. We have seen a decrease in the number of falls due to improper footwear (from 25% to 10%). There have been reports of near-falls that have been averted. The fall risk assessment tool appears predictive, with fallers scoring much higher than a random sample of non-fallers. Conclusion: The outpatient fall reduction program has led to better patient safety within our clinic.

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

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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 always based on sound evidence. As evidence reveals appropriate infection control measures for the immune compromised patient, the Clinical Practice Review Committee at a large comprehensive cancer center developed guidelines for educating patients about evidenced based protective measures. In an attempt to ensure that all patients receive consistent information, two BMT nurses, the Discharge Coordinator and the Clinical Nurse Specialist (CNS) (referred as “the group”) discussed the need to offer a discharge preparation class to caregivers. Caregivers were chosen because they are responsible for patient care in the home. The group thought that patients would be too ill to attend an hour long class during their hospitalization. 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. Because the class would include both autologous and allogeneic caregivers, allogeneic caregivers were asked to stay for an additional 15–20 minutes to discuss GVHD and prolonged immune suppression. Advertisement for the class started with a flyer given to patients and families on admission. The class was held in the units’ family waiting area. 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. Now in it’s 9th month, the class averages 15 participants per week. Feedback from follow-up phone calls validate that the discharge class has been helpful for patients and caregivers to safely transition to home.

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A SPECIALTY CLINIC FOR PEDIATRIC HEMATOPOIETIC STEM CELL TRANSPLANT PATIENTS WITH CHRONIC GRAFT-VERSUS-HOST DISEASE

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Chronic graft-versus-host disease (cGVHD) is a potentially devastating complication of pediatric, allogeneic hematopoietic stem