sharing of their TMV projects. This study is funded by the National Institutes of Health, National Institute of Nursing Research R01 NR008583 and by Children’s Oncology Group ANUR0631.

78 PSYCHOSOCIAL ADJUSTMENT IN LONG TERM SURVIVORS OF ALLOGENEIC HSCT: A COMPARISON OF PATIENTS TREATED WITH MYELOABLATIVE (MC) AND REDUCED INTENSITY CONDITIONING (RIC) REGIMENS

Methods: Cross-sectional data were drawn from the ongoing longitudinal study. Measures included the Psychosocial Adjustment to Illness Scale (PAIS), the Rotterdam Symptom Checklist-physical (RSCL-P) and the Functional Assessment of Cancer Therapy – General (FACT-G). Data were analyzed using descriptive statistics, correlation and regression analyses.

Results: Subjects (N = 120) were a median of 62 months from aHSCT (range 34–156), predominantly male (59%), married (63%), and had an ECOG status of 0 (86%). Mean scores for PAIS adjustment did not differ between the RIC (27.6 ± 2.56) and MC (26.1 ± 1.82) groups (t = 4.93, p = 0.062). Age, gender, marital status, education, employment, transplant conditioning intensity, performance status and physical symptom distress explained 50.5% of the variability in PAIS scores (F = 9.30, p < 0.01). Being unmarried (β = −0.169, p = 0.044) and experiencing greater physical symptom distress (β = 0.609, p < 0.001) independently predicted poor adjustment. Poor PS adjustment was strongly associated with poor HRQL (r = −0.78, p < 0.001). Survivors (n = 29; 24%) with poor adjustment (PAIS T-score ≥26) reported the greatest difficulties with family (immediate and extended) issues, sexual relationships and psychological distress.

Conclusion: Understanding the factors that predict poor PS adjustment in survivors of aHSCT guides intervention strategies including approaches to systematically assess and manage distressing symptoms. Studies to develop and test educational and counseling interventions that optimize individual and family functioning, including sexual relationships, in transplant recipients are warranted.

Acknowledgment: This research was supported by the Intramural Research Program of the NIH.

TRANSPLANT NURSING ORAL CLINICAL

79 IMPLICATIONS FOR NURSES AND THE SUPPORTIVE CARE NEEDS FOR CHILDREN UNDERGOING REDUCED INTENSITY CONDITIONING (RIC) ALLOGENEIC STEM CELL TRANSPLANTATION (RIC-ALLOSCOT)

Barrell, C.1, Dietzen, D.1, Shonfeld, T.1, Pinchekovsky, S.1, Satwani, P.2 1 Morgan Stanley Children’s Hospital of New York Presbyterian, New York, NY; 2 Columbus University, New York, NY

Allogeneic hematopoietic stem transplant (AlloSCT) is a curative option for many children with malignant and non-malignant disorders. However, myeloablative AlloSCT’s are associated with 20–40% non-relapse related mortality (NRM) in first 100 days post AlloSCT (Satwani/Cairo et al, BBMT 2005, PBC 2007). The morbidity and mortality associated with AlloSCT often result in an increase in length and complexity of nursing care. However, RIC-SCT may potentially reduce toxicities and lead to a reduction in supportive care needs associated with an increase in nursing care; including reduction of blood products, antibiotics, TPN, and narcotics. There is limited data on the toxicities of RIC-AlloSCT in children and the impact on their nursing needs. We evaluated the toxicities and supportive care measures during the conditioning regimen and 30 days post transplant required in 43 children who underwent a RIC-AlloSCT between January 2004–March 2008 for either a malignant (n = 23) or non-malignant disease (n = 21): Median age 10 yrs (0.3–22 yrs), UCB (n = 17), MFD (n = 20), MUD (n = 6). Average risk patients (n = 41), poor risk (n = 2).

Regimens: Busulfan (6.4–8mg/kg) + Fludarabine (150–180mg/m²) ± ATG (8mg/m²) (n = 22); Cyclophosphamide (60mg/kg) + Fludarabine + (150mg/m²) ± ATG (8mg/m²) (n = 10); Busulfan (12.8–16mg/kg) + Fludarabine (150mg/m²) + A lenamtuzumab (54mg/m²) (n = 11). Median time to neutrophil and platelet recovery was 14.5 (8–38) and 12.5 (10–99) days, respectively. Median number of platelet and PRBC transfusions was 60–32 and 30–11, respectively. The incidence of aGVHD (Gr II–IV) was 33%. One patient had primary graft failure and the incidence of VOD was zero. Median drop in estimated CrCL from pre transplant to 30 days post was 40% (0–68). The median highest grade of mucositis was 1 (0–3) with median number of days on TPN 0 (0–38) and median number of days requiring a PCA 0 (0–30). The median number of days with fever 5 (0–21) and the median number of infections per patient 1 (0–2) of which 2 patients required line removal. Three patients required ICU transfer. Day 100 NRM was 2%.

Conclusions: RIC-AlloSCT is safe, well tolerated, and associated with significantly lower NRM. We hypothesize RIC will demonstrate a decrease in nursing time and complexity of care. Therefore, we are in the process of collecting data on our patients who had a myeloablative AlloSCT to compare the incidence of various toxicities and subsequent nursing supportive care needs to our RIC-AlloSCT experience.

80 EASING THE TBI EXPERIENCE IN THE PRE-SCHOOL PATIENT

Cash, J.V.1, Sweezy, C.M.1, Browne-Topte, A.1, Martin, P.L.1, Georgas, D.L.2, Larrier, N.A.2 1 Duke University Medical Center, Durham, NC; 2 Duke University Medical Center, Durham, NC

Pediatric patients in the pre-school age group can pose unique challenges for their care team and caregivers when undergoing preparative therapy for transplantation. This is especially true when total body irradiation (TBI) is included in the preparative regimen. Typically, TBI in the pre-school patient involves the use of general anesthesia (GA) to ensure proper positioning, cooperation, and general patient safety. TBI treatments at our center are given outpatient in BID fractions, over 4–5 days. A consult with anesthesia is included in the pre-transplant work-up, and the caregiver is given detailed information about keeping the child NPO for 4–6 hours, not only once, but twice daily. As a result, many of these children need daily IV fluids in our clinic. To address these challenges, our center implemented a program designed to identify pre-schoolers as potential candidates to receive their TBI treatments without GA. Initial discussions between the transplant nurse coordinator and the caregiver provide education regarding TBI. The patient is then scheduled for a consultation with the pediatric radiation oncologist. Discussion includes the option for the patient to have a “practice” TBI session. We have found this session key in identifying children who could receive TBI without GA. The practice session involves collaboration of skilled radiation therapy technicians and Child Life Specialists. Age appropriate techniques are used to help the patient practice their treatment position. The child is taught how and why the legs and forehead may be taped to help hold them steady. Children have the choice of watching a favorite video, or talking to their caregiver through in intercom system. The treatment door is closed for 5–7 minutes, simulating an actual treatment. If the session is successful, the
patient is given tape to practice the treatment position and immobility. The children enjoy the "hands on" experience and the opportunity to show others what they have learned. Our center has successfully treated 4 children (ages 2.6 years - 4.6 years) over the past 2 years without GA. This has allowed the children to eat ad lib, minimized their time in clinic, and improved their overall quality of life. In addition, it is estimated that $55,000 per patient is saved by treating without GA. There is scant information in the medical literature about this approach. We plan to continue to study it's feasibility over the next 2 years.

81 TIME IS MONEY: COST ANALYSIS OF NURSING SALARY EXPENDITURE AND TIME SAVINGS BY UTILIZING THE BIOPATCH DRESSING FOR CENTRAL VENOUS CATHERS ON AN INPATIENT BONE MARROW TRANSPLANT UNIT
Cunningham, B., Devine, D., Harvey, K. St. Francis Hospital and Health Centers, Beech Grove, IN; Indiana Blood and Marrow Transplantation, Beech Grove, IN

Background: The use of a BIOPATCH Dressing for central venous catheters (CVC) has proven to reduce catheter-related bloodstream infections (BSI) and extended patient stays in the Bone Marrow Transplantation Unit (BMTU), University of Wisconsin Hospital. The use of the BIOPATCH Dressing has decreased the number of CVC dressing changes performed each week by BMTU nurses at St. Francis Hospital. Nurses gained additional time to perform more nursing tasks such as patient education and psychosocial support for patients. Existing literature offered no information about the savings in nursing time and salary expenditure by utilizing a BIOPATCH Dressing for CVC. This study examined monetary savings for nursing time and salary expenditure by using the BIOPATCH Dressing.

Method: A data collection tool was designed to track the date of each CVC dressing change utilizing the BIOPATCH Dressing from 3/2007 to 2/2208. Other data collected included the reason for the dressing change and a CVC exit site skin assessment. A mean time of 10 minutes required to change a CVC dressing was calculated using observational data from the skill performance of 10 BMTU nurses. Information provided by unit management disclosed that the mean hourly rate for nursing salary was $30.00. Nursing salary expenditure for 225 dressing changes totaled 35.5 hours representing a 66% reduction and savings of 71 hours.

Results: Analysis of patient data (N = 71; 1494 hospital days) revealed the number of required CVC dressing changes under the old BMTU Policy (M,W,F) would total 640. By using a BIOPATCH Dressing, the number of dressing changes under the amended Policy (1/day/week) totaled 225 representing a reduction of 65% or 415 dressing changes. Nursing salary expenditure for 640 CVC dressing changes would total $3,200.00. Nursing salary expenditure for 225 dressing changes totaled $1,065.00 representing a 66% reduction and savings of $2,135.00. Nursing time required to complete 640 dressing changes was 106.5 hours. Nursing time required to complete 225 dressing changes totaled 35.5 hours representing a 66% reduction and savings of 71 hours.

Conclusion: Study data validated changes in unit policy regarding CVC dressing changes. By eliminating 2 dressing changes a week, nurses gain additional time to address patient needs which has increased job satisfaction. The decrease in nursing salary expenditure was shown to be significant. More research is needed to determine if money saved can result in hiring of more nurses or changes in nurse/patient ratios.

82 NURSING CARE OF THE BONE MARROW TRANSPLANT PATIENT WITH HEMORRHAGIC CYSTITIS
Eron, B., Talbert, G., Shoa, T. UNC Hospital, Chapel Hill, NC

Hemorrhagic cystitis is a complication that can occur after an allogeneic stem cell transplant. Painful bladder spasms, urinary bleeding, clots and frequency are symptoms that patients often present with during episodes of hemorrhagic cystitis. Savon (2007) states that hemorrhagic cystitis is caused by BK virus, a human polyomavirus acquired in childhood, which remains latent in the genitourinary tract throughout life. Arthur (1986) noted an association between activation of BK virus and hemorrhagic cystitis in allogeneic stem cell recipients. In an effort to reduce viral load, weekly infusions of cidofovir are often used until the BK copies are detected less often, prednisone dose is reduced and immunosuppressant therapy is being tapered. Recently in an attempt at symptom relief, weekly intravesicular (bladder) cidofovir infusions have been used with some success. The bladder infusions of cidofovir are specifically for relief of the discomfort related to the hemorrhagic cystitis and do not treat the BK virus. Patients’ most frequent complaint associated with hemorrhagic cystitis is pain. The cidofovir bladder infusion is designed to coat the inside of the bladder with a dilute solution of cidofovir. This is achieved by instilling the solution and clamping the bladder for 45 minutes to one hour. Encouraging the patient to void prior to the instillation did reduce some discomfort. Each patient’s pain tolerance is different and determining the appropriate amount of pain medication to alleviate the discomfort of instilling a Foley catheter, medication, clamping, and tolerating the time of the treatment were all significant challenges. Clearly addressing the challenges of the procedure and enlisting the patient’s assistance in selecting the amount and timing of the pain medication gave the patient some degree of control in a difficult situation. The bladder infusions are routinely preformed on a weekly outpatient basis. Patients continue until they have an abatement of symptoms; which has not shown to be related to the number of BK copies in the urine or serum BK virus. The purpose of this poster is to describe the unique aspects of nursing care for the BMT patient receiving intravesicular cidofovir for the management of BK virus associated cystitis.

83 IMPACT OF A PHARMACIST IN THE OUTPATIENT ALLOGENEIC STEM CELL TRANSPLANT CLINIC
Burzynski, J.A.¹, Crane, L.F.², Geerdts, J.A.¹, Perreault, S.K.¹, Litzzow, M.K.¹, Hogan, W.J.¹, Elliott, M.A.¹, Wolf, R.C.¹, Mayo Clinic, Rochester, MN; ² Drake University, Des Moines, IA

Background: Although it has demonstrated benefit in cancer patients, pharmacist involvement in direct patient care of allogeneic stem cell transplant (SCT) patients has not been described. The 2009 National Patient Safety Goals from the Joint Commission emphasize the importance of accurate and complete medication lists (including drug, dose, route, and frequency) across the continuum of care to reduce adverse drug events. We hypothesize that including a pharmacist in the care of patients undergoing allogeneic SCT will improve medication list accuracy and improve pharmaceutical care.

Methods: Allogeneic SCT patients commenced scheduled pharmacist appointments at Mayo Clinic on 5/5/08 prior to their physician visit to complete medication reconciliation and provide pharmaceutical care. Allogeneic SCT patients were included if they had a pharmacist appointment in the SCT clinic between 5/5/08 and 10/1/08. Patients were excluded if they refused consent for use of their medical records for research or had not been evaluated by a Mayo Clinic physician for more than 1 year. Retrospective data was collected to analyze trends in medication list accuracy. Mean medication list omissions were compared by Wilcoxon rank-sum tests and McNemar’s test was used to compare error-free medication lists. Pharmaceutical care recommendations and outcomes (drug interaction management, dose adjustment in organ dysfunction, formulation changes to improve adherence or efficacy, etc.) were recorded.

Results: A pharmacist met with 90 patients between 5/5/08 and 10/1/08 prior to each physician visit, totaling 410 patient visits during 105 clinic days. Three patients were excluded; consent refused (n = 2) and no physician visit at Mayo Clinic during past year (n = 1). Patients had a range of 3 to 49 medications (median