

review of the literature and collaboration with the Infection Control Department and BMT physicians, a number of nursing practice changes were made. Staff, patients, and family members were educated on the risks of water contamination of CVCs during bathing and on prevention methods to minimize water contact with the CVCs. **Evaluation:** Rates of *Mycobacterium* infections are being examined and water samples are being monitored. The program's patient education binders are being revised. **Discussion:** Nurses have a fundamental role in the prevention of *Mycobacterium* CVC infections. Through diligent practice changes as well as patient and caregiver education, infection rates can diminish.

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##### THE ROLE OF THE NURSE PRACTITIONER CARING FOR BLOOD MARROW TRANSPLANT PATIENTS IN THE AFTER HOURS ONCOLOGY CLINIC

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**Purpose:** Caring for bone marrow transplant (BMT) patients in an outpatient clinical setting is very challenging. The patients are usually very sick with multiple complaints that require frequent and timely interventions. Over the years the treatment of BMT patients has changed. One major change, the Autologous Peripheral Blood Progenitor Cell Transplant, has gone from being a hospital procedure, to a common outpatient clinic procedure. This has created a need to extend the Ambulatory Clinic hours to accommodate the growing patient population. **Method/outcome summary and conclusions:** For the past year, the numbers of calls to the emergency center from the after hours clinics began to increase steadily. The advanced practice nurses who were working extra hours to cover in the emergency center began to keep a record of the calls and the types of problems and interventions required. After a 3-month pilot period, the results were evaluated. The medical needs were classified as urgent, emergent, or routine. The most frequent calls for the total patient population were for nausea and vomiting, fever, blood transfusion and chemotherapy reactions, and pain medication. The most frequent calls for BMT patients were similar. A position was created for a Nurse Practitioner who would see and evaluate the patients in the after hours clinic, freeing the emergency physician to see the patients in the emergency center. Guideline and protocols were developed to guide their practice. The nurse practitioner works closely with the emergency room physician and the primary care doctor. Patients requiring care that is outside the scope of practice of the NP are stabilized and transferred to the emergency center for further treatment. The emergency center physician was usually very busy and not able to come up and see the patient immediately. **Implications for Nurse Practitioners:** Nurse Practitioners are a valuable asset to the healthcare system. We are constantly developing ways to provide high-quality care to our patients. Since the utilization of Nurse Practitioners in our after hours oncology clinics is a success, we recommend that Nurse Practitioners would be instrumental in other after hours clinic settings.

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##### THE UNTOLD STORY: FEMALE GENITAL GVHD

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Survival post allogeneic bone marrow transplantation has improved over the past few years as a result of enhanced supportive care. Associated with better transplant outcomes are survivorship and quality of life issues. These issues have often been overlooked, as the cure of the disease has been seen as the main focus. Over the last year one such quality of life issue has been brought to our attention. Female sexuality issues in our post transplant patients have been seriously overlooked. This presentation will tell the

story of one of our transplant patients who had problems with lower genital tract graft-versus-host disease. Our transplant protocol has undergone some changes because of her experiences. Some preliminary data from an audit of our protocol change will be shown with this presentation.

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##### HHV6 INFECTION PATTERNS FOLLOWING A NOVEL REDUCED INTENSITY CONDITIONING REGIMEN FOR NON-MALIGNANT DISORDERS

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**Background:** Human Herpesvirus 6 (HHV6) has recently been implicated in complications following stem cell transplantation (SCT), as molecular diagnosis by polymerase chain reaction (PCR) has evolved. Symptoms include fever, rash, malaise, pancytopenia, and encephalitis. Infection occasionally contributes to transplant related mortality. HHV6 infection typically peaks 2 to 3 weeks after myeloablative SCT. Patterns of HHV6 infection following reduced intensity transplants (RIT) are likely to be different in view of altered engraftment and immune reconstitution kinetics. We describe our experience with HHV6 infections following RIT for non-malignant disorders. **Methods:** 10 patients received campath-1H  $\times$  3 (between day -28 and -19), fludarabine  $\times$  5 (day -8 to -4), and melphalan  $\times$  1 (day -3) prior to SCT (day 0). HHV6 PCR was performed on all 10 recipients pre-transplant. Testing was performed post-transplant in the event of marrow suppression or systemic symptoms for 1 year. All patients were followed for GVHD and immune reconstitution. Myeloablative SCT recipients were tested in similar fashion. **Results:** HHV6 PCR was negative in all recipients prior to commencing conditioning. Five (50%) became PCR+ between 1 and 6 months post transplant (median 2.2 months). Sixteen of 74 (21%) in the myeloablative group were HHV6 PCR+ between 2 weeks and 3 months (median 1 month). Testing was precipitated by fever, rash, pancytopenia, diarrhea, or malaise. Symptoms were treated with gancyclovir and other medications (in 1 patient with gancyclovir resistant disease). No encephalitis was encountered in either group. There was no mortality attributed to HHV6 infection. Kinetics of GVHD and T cell reconstitution was correlated with infection to compare the dynamics of immune recovery with infection patterns. **Conclusions:** Symptomatic HHV6 infections were more frequent following RIT. We recommend early diagnosis and therapy to avoid infection related complications and associated mortality. The onset of infection can be delayed and the risk period extends for longer following SCT using this regimen. The timing of infection correlates well with immune reconstitution and recovery of CD4+ T cells.

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##### NEONATAL UMBILICAL CORD BLOOD TRANSPLANTATION FAVORABLY ALTERS THE NEURODEVELOPMENTAL OUTCOME AND SURVIVAL OF BABIES WITH INFANTILE KRABBE DISEASE

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Infantile globoid leukodystrophy (Krabbe disease) produces rapidly progressive neurological deterioration and death in infancy or early childhood. A group of newborns diagnosed because of family history of a sibling who died of infantile Krabbe disease were identified. It was hypothesized that unrelated umbilical cord transplantation performed in the neonatal period would favorably alter the natural history of their disease. The outcomes of these neonates were compared with those of infants without a family history diagnosed and transplanted with symptomatic disease. Twenty-six