reduction in 4 inpatient days per case. Patient and caregiver satisfaction has been high and the rate of readmission has remained constant.

277 IMPLEMENTATION OF A PROCESS INITIATIVE ON THE BLOOD AND MARROW TRANSPLANT UNIT THAT HAS INCREASED OVERALL FAMILY SATISFACTION WITH QUALITY OF CARE

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The Blood and Marrow Transplant (BMT) Unit has implemented a hospital-wide patient care delivery methodology which has resulted in increased overall family satisfaction. This model, known as Patient Care and Access Process Initiative (PCAPI) focuses on uniting the patient care team including the patient/family. The central concept is to facilitate the customer service aspect of care delivery. Employees are recognized for their efforts to treat their customers with courtesy, attentiveness, respect, confidentiality and in a safe environment. Through defined roles, patients are oriented to their environment and to the resources of the care delivery systems. The PCAPI team develops collaboration on the plan of care documentation, education and discharge process. PCAPI provides a forum to ensure that the patient and family are as involved in the plan of care as they choose to be. Methods of presenting rounds are tailored to the unique needs and circumstances of the family. BMT patient-centered rounds ensure that resident physicians and nurses are receiving clinical education and role modeling in both medical and family-centered concepts. Caregivers communicate the child’s needs through verbal interactions on rounds and written documentation in the medical record. Over the past 10 months, satisfaction scores were evaluated. Results from family satisfaction surveys completed prior to and after the initiation of PCAPI revealed scores of 7.1 (pre) and 9 (post). The scores ranged from 0 (lowest) to 10 (highest). The data obtained from an n=29 pre-PCAPI surveys and an n=28 post-PCAPI surveys revealed an overall increase in satisfaction in quality of care delivered to the patients. For the future of family centered care here at Cincinnati Children’s BMT Unit it is necessary to continue to build the team approach to care, connecting with the patient/family every step of the way.

278 BMT-EZ: INNOVATIVE COMMUNICATION VEHICLE IN TRACKING BONE MARROW TRANSPLANT PATIENTS

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At one of the largest blood and marrow transplant centers in the world, the BMT patient travels through a complex process from evaluation by the BMT physician, through pre-evaluation testing, financial clearance, admission work-up and transplant. It was determined through consensus of the team and by observation of interactions between team members that patient follow-up was inconsistent amongst the multidisciplinary care team. For many years, a patient tracking list has been utilized as a tool to follow the progress of patients through transplant. It recently has evolved into the main communication instrument utilized by the clinic coordinators, patient access coordinators, matched-unrelated donor coordinators, social workers, research nurses, research data coordinator, administrative director, nurse manager, business center manager and supervisor. The list is identified as the BMT-EZ, a vital communication vehicle capable of being updated from multiple multidisciplinary workstations and easily accessible by the team. This tracking includes transplant patients listed by doctor and also includes diagnosis, consult date, transplant type, protocol assignment, and financial and clinical comments. The financial column is updated by the business center patient access nurse coordinators to communicate approvals, denials, and other financial interventions. The clinical notes are updated by the clinic nurse coordinators as the patients clinical status changes. The multidisciplinary team attends a weekly tracking meeting facilitated by the BMT clinic nurse coordinators. The clinic coordinator reviews the BMT-EZ tracking list and provides new clinical updates to the team. The multidisciplinary team is encouraged to offer additional information not noted on the tracking list on any patients during this meeting. This regular meeting, coupled with the use of the tracking list, has minimized the possibility of a patient falling thru the cracks or being lost in our complex system. Currently, patients have a smoother transition from consultation to transplant admission thus creating a high level of patient satisfaction and role clarification amongst the multidisciplinary team.

279 CARE OF THE AUTOLOGOUS BLOOD AND MARROW TRANSPLANT PATIENT IN A FAST PACED CLINIC WITH A MULTIDISCIPLINARY TEAM APPROACH

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The nursing goal for the Blood and Marrow Transplant (BMT) Fast Track Clinic is to provide point-of-service care to meet the needs of autologous patients in an efficient manner that fosters satisfaction with quality of the care. The Fast Track multidisciplinary team consists of: an advanced practice nurse, clinic nurse, clinical pharmacist, phlebotomist, and a scheduling coordinator. This team collaborates to address the various symptoms presented by this population such as nausea, diarrhea, pain and fatigue. Fast Track is located within the BMT Clinic with several exam rooms designated for use. Patients have labs drawn in the morning by the phlebotomist who facilitates timely return of results. The clinic nurse then performs an initial patient assessment. Once lab results are available, the team further assesses the patient. Treatments such as electrolyte replacements and intravenous fluids are administered by ambulatory IV pumps. Infusions greater than one hour and blood product transfusions are transitioned to ambulatory clinics capable of longer-term infusions. Post-mobilization patients are transitioned to the apheresis clinic once their CD34+ counts are adequate. BMT physicians evaluate patients once a week until their absolute neutrophil count is stable and they are able to transition off of intravenous fluids. At that time, the patient is “graduated” from Fast Track, down the hallway, back to their physician’s regular clinic. Monthly patient satisfaction surveys and daily comment cards are used to evaluate the patient perception of care and the nursing goal of Fast Track. Data such as patient volume, room usage, and types of treatments administered are documented on a daily spreadsheet. This data is reviewed by the Fast Track multidisciplinary team on a monthly basis to trend and implement quality improvements as needed.

280 MISSED APPOINTMENTS: WHAT ARE THEY AND WHY DO THEY HAPPEN?

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Blood and Marrow Transplant patients require care, time, and follow-up. At one of the largest transplant centers in the world, performing over 550 transplants per year, scheduling patient appointments and assuring these appointments are kept presents a challenge. Monthly activity reports demonstrate an average of 200 missed appointments per month including new patients, consults, and follow-ups. In an effort to address this issue, it was determined that the missed appointment policy and procedure needed to be updated and the utilization of the missed appointment log needed to be reviewed with staff. There were also many staff members that were unaware of the current policy and questioned who was responsible for contacting patients who had missed his/her appointment. It was unsure why appointments were being missed; therefore, presenting concerns regarding patient follow thru and clinic flow. This resulted in a performance improvement project to address ways to improve this process and to assure patients are being seen appropriately and timely. As a result, re-
education of staff regarding the policy and procedure and the newly revised missed appointment log has been instituted. With the revision of the missed appointment log, the nurse can track the type of appointment missed, the physician, reasons for the missed appointments, and impending follow-up. As new patients or consults, a change was implemented requiring the scheduler to contact the patient confirming the appointment date and time. This is a project that will and has led us to look at ways to improve clinic flow to assure that patients are receiving the best quality of care before and after transplant.

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WHEN DYSPNEA BECOMES AN ONCOLOGIC EMERGENCY FOR BLOOD AND MARROW TRANSPLANTATION (BMT) PATIENTS: DIFFUSE ALVEOLAR HEMORRHAGE

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Diffuse alveolar hemorrhage (DAH) in any patient can lead to a life-threatening situation, but in general the risk of occurrence is low with reported incidents varied from 2-20%. Prompt treatment is essential. When untreated mortality has been reported in excess of 75%. In the BMT patient the risk factors are increased for several reasons aside from low platelets during the period of pancytopenia. Other risk factors include: chemotherapy, total body irradiation (TBI), infection, and old age. Because of these risk factors, the clinical nurse caring for the BMT patient during the period of engraftment is responsible for being hyper-vigilant and acting immediately upon subtle respiratory changes. The signs and symptoms of DAH include: dyspnea; hemoptysis; hypoaxia demonstrated by decrease in O2 saturations; change in respiratory status-cough, tachypnea, use of accessory muscles, decrease in breath sounds; anxiety; confusion; restless; and heart palpitations. At our unit the nurse is the first to realize when DAH are treated and cared for each year, the unit-based clinical practice council has developed a DAH standard of care that identifies practice guidelines. These include general information about DAH and principles of treatment; our policy containing guidelines and responsibilities of the nurse to inform the medical team; and nursing interventions. On our unit these interventions may include: administration of Solu-Medrol, Lasix, DDAVP, Amicar, and a cough suppressant; initiation of O2 to keep saturations above 95%; and infusing platelets. Additional diagnostic assessments may include ABGs, portable chest x-ray, and bronchoscopy. Protocols involving the use of activated Factor VII for DAH are also being examined to improve hemostasis. Recognition of acute bleeding, including DAH, is a competency that is tested yearly on our unit. DAH case reviews are discussed at staff/clinical practice meetings. A case review, including immediate nursing interventions, and outcomes data of DAH at our center will be presented.

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THROMBOTIC THROMBOCYTOPENIA PURPURA AND HEMOLYTIC UREMIC SYNDROME IN BONE MARROW TRANSPLANT SHElburne, N.P. Nursing Department, National Institutes of Health, Silver Spring, MD.

Thrombotic thrombocytopenia purpura (TTP) and hemolytic uremic syndrome (HUS) are multisystem, microvascular, platelet clumping disorders, associated with cancer, chemotherapy, immunosuppressive drugs, and bone marrow transplant (BMT). TTP and HUS, although rare, have a high mortality rate even with early recognition and intervention. Endothelial cell damage, secondary to irradiation, chemotherapy, and immunosuppressive drugs, initiates a cellular cascade that places BMT patients at risk for developing TTP and HUS. The clinical manifestations of these syndromes include hemolytic anemia, thrombocytopenia, renal failure, fever, and neurological changes. In BMT patients, making an early diagnosis of these syndromes may be difficult with thrombocytopenia and anemia already present. The standard treatment for BMT related TTP and HUS are plasma exchange and change of immunosuppressive agents, as cyclophosphamide and tacrolimus (FK506) have been implicated in causing these syndromes. Von Willebrand factor (vWF) is a normally occurring factor in the blood that assists in platelet aggregation, but in TTP and HUS, there is an excess number that are abnormal in size. Plasma exchange is used to remove the abnormal vWF and replace normal vWF. In addition, supportive care includes transfusions for anemia, and hemodialysis for renal failure. The administration of platelets for thrombocytopenia can exacerbate these syndromes. TTP and HUS can be difficult to identify early before multi-system and systemic involvement. The BMT nurses role is to understand these complications and ensure appropriate monitoring and early intervention to include assessment for signs of anemia and thrombocytopenia, need for transfusions, changes in neurological status, weight and input/output monitoring as an indicator of renal function, and patient/family education. In conclusion, the bone marrow transplant population is at risk for TTP and HUS. The key to a successful outcome includes assessment skills, laboratory monitoring, and management of the multi-system involvement.

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EARLY CMV REACTIVATION IS ASSOCIATED WITH GANCICLOVIR PROPHILAXIS ADMINISTERED BEFORE TRANSPLANTATION

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We performed an analysis of incidence of CMV reactivation and morbidity in 71 children undergoing allogeneic HSCT during 8 years (1994-2002). Thirty-eight patients suffered from hematological malignancies (incl. AML, ALL, CML, MDS, lymphoma) and 33 from non-malignant diseases (incl. SAA, FA, hemophagocytic syndromes, SCID, ALPS with secondary AML). Patients and methods. 28 consecutive allo-patients in 1994 - 1998 received the preventive ganciclovir, from day - 8 to day - 2, in order to obtain the prophylaxis of CMV reactivation in post-transplant. Since 1999, 43 allo-patients did not received preventive ganciclovir before transplant. Both cohorts of patients were comparable. Results. Overall incidence of CMV infection, confirmed by PCR detection of virus, was 19/71 transplant recipients (26.8%). We observed that 13/28 (46.4%) patients of ganciclovir group had a CMV reactivation, and 3 of 13 demonstrated a CMV disease with no evidence of CMV disease. Conclusion. Our data suggests that prevention of CMV reactivation and morbidity with ganciclovir administered before transplant does not reduce the incidence of CMV infection, and furthermore the incidence of CMV viremia is paradoxically higher in patients receiving ganciclovir prophylaxis. It may be related with retardation of early anti-CMV T-cell response resulted from suppression of hypothetically existing latent infection. We conclude that preventive ganciclovir before HSCT is not expedient. On the other hand, PCR monitoring of CMV infection and pre-emptive treatment of viremia show their efficacy and seem to be necessary in HSCT setting.

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DEVELOPMENT AND UTILIZATION OF A UNIFIED STRATEGIC BUSINESS PLAN FOR MARKETING BLOOD AND MARROW TRANSPLANT OUTPATIENT CLINIC SERVICES THE GOAL IS TO INCREASE AWARENESS OF OUTPATIENT TRANSPLANTS AND INCREASE REFERRALS

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Blood and Marrow Transplant Services, PLLC is a subsidiary of Texas Oncology, P.A. The outpatient clinic recently doubled in size to 14, 000 square feet in capacity with 6 private rooms, 16 infusion chairs and 15 exam rooms. Charged with the goal of increasing awareness of outpatient transplants and referrals, clinic administration developed a strategic plan through surveying physicians, patients and clinic personnel. After compiling all the data received in the surveys, we developed a strategic plan through...