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**DO WE KNOW THE EDUCATIONAL NEEDS OF NURSES WORKING WITH PHYSICIANS WHO REFER PATIENTS TO TRANSPLANT CENTERS?**

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**Topic:** The educational needs of nurses working with physicians referring patients for hematopoietic cell transplantation (HCT).

**Purpose:** Develop and conduct a survey of referring nurses to determine their educational needs and the most effective teaching methodologies to address these identified needs.

**Interventions:** Transplant Research and Education Initiatives in Nursing (TREIN) consists of five nurses from geographically distinct United States transplant centers whose goal is to develop and implement educational and research programs for the benefit of nurses and the patients they serve. TREIN is supported by an unrestricted educational grant from AnorMED. TREIN's first project is to develop an understanding of the educational needs of referring nurses. To date, we have developed and conducted a pilot survey. Each member of TREIN interviewed two referring nurses. Using the findings from this pilot survey, a questionnaire has been developed to be used in a comprehensive survey of referring nurses.

**Findings:** The pilot survey identified a number of factors that were considered in the development of the final questionnaire. One of our first challenges was identifying the referring nurse. While each transplant center has data on referring physicians, identifying the nurse or nurses in the practice was cumbersome. Communication between the HCT center and the referring practice was usually done between the HCT coordinator or physician directly to the referring physician. Referring nurses did not usually receive direct information from the HCT center although direct communication was desired. Nine of ten referring nurses interviewed identified learning needs. The most common learning need was for basic medical and nursing education regarding the HCT process.

**Discussion:** Referring nurses assume care for HCT recipients at many points across the treatment and recovery continuum and may have little to no formal education regarding HCT. It is our hope that by identifying not only the learning needs of referring nurses but also the most appropriate teaching methodologies, TREIN will be able to reach out to referring nurses to address these unmet educational needs. We believe that by establishing a closer relationship with referring nurses and assisting them with their transplant related educational needs, the care of HCT patients will be enhanced and a smoother transition of care for HCT patients before and after transplantation will be facilitated.

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**HEMATOPOIETIC STEM CELL TRANSPLANT NURSING: COMPETENCY-BASED TRAINING**

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**Purpose**

Stem cell transplantation (SCT) is a growing specialty in oncology and in immunotherapy. Although there is an extensive database on the medical aspects of SCT, there is a significant gap in the literature relating to clinical training guidelines for the orientation of new transplant nurses. Furthermore, inconsistencies were identified in the institution's current orientation program which focused considerably on technical skill training.

The development of a systematic, competency based orientation program will maximize the learning and teaching opportunities ensuring comprehensive cognitive and procedural skill training for the new SCT nurses. The researchers identified the need to develop self-directed learning modules and quizzes to develop nurses' clinical inquiry and problem solving skills. The need to improve the process for stem cell reinfusion skill training to ensure staff's technical competency was also identified. Lastly, outdated policies

and competency checklists will be revised to reflect the new competency-based orientation training.

**Interventions**

A comprehensive literature search was conducted to establish the lack of literature related to competency-based training programs in stem cell transplant nursing. Benchmarking with comparable transplant centers in the country was conducted to establish industry best practices. A learning needs-assessment was conducted to establish areas in the SCT orientation process requiring improvements.

**Evaluation**

This project identified best practices in the orientation of a new SCT nurse and identified several phases:

- I. Basic stem cell transplant didactic training
- II. Intake process observation
- III. Stem cell harvest observation
- IV. Stem cell cryopreservation observation
- V. Stem cell reinfusion training
- VI. Self directed readings and learning modules
- VII. Annual SCT nursing competency evaluation

This competency-based nursing orientation program will ensure clinical and cognitive core competencies to prepare new SCT nurses to effectively and safely care for the clinically complex and often critically ill SCT patients.

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**ANALYSIS OF OUTCOMES FOR VASCATH INSERTION FOR PAEDIATRIC PERIPHERAL BLOOD STEM CELL COLLECTION: A QUEENSLAND EXPERIENCE**

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Haematopoietic stem cell transplantation is now a standard procedure used for many paediatric oncology conditions. The stem cells can be collected from 3 different sources, bone marrow, cord blood and from peripheral blood.

Peripheral blood stem cells are harvested following stem cell mobilisation into the peripheral blood. Standard practice in adult units is to insert a large bore or 14Gauge peripheral cannula. However in children this is not practical, so another option is required. The use of standard central venous catheters (CVC) is not possible due to the large flow rate required which can collapse the standard CVC. It is the standard of practise at the Royal Children's Hospital to insert an apheresis catheter to the jugular or subclavian veins. This catheter is inserted and remains insitu until the peripheral blood stem cell collection is completed. There is little data published on the complications arising from this practice in paediatrics unless inserted in the femoral vein. This paper will discuss our institutional practice and current outcomes noted in relation to peripheral blood stem cell collections and the use of large rigid apheresis catheters.

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**ESTABLISHMENT OF A LONG-TERM ALLOGENEIC BLOOD AND MARROW PROGRAM FOR EARLY DETECTION OF COMPLICATION AND MEASURING OUTCOMES**

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Almost sixty percent of the 613 patients transplanted at our center last year received allogeneic blood or marrow transplantation. Allogeneic BMT complications are most prevalent in the first 100 days, but late infections and chronic graft versus host disease frequently occur after patients leave our comprehensive cancer center at day 100. Establishing a thorough, comprehensive and central computer accessible patient assessment will enable practitioners to phone triage problems with community healthcare providers and identify changes during follow-up visits for prevention, early detection of complication and prompt referrals.

At our center the patient's initial BMT physician remains involved in the care throughout the transplant process and follow-up. Referrals to our GVHD clinic occur as deemed appropriate by the clinic physician. Capture of the overall program incidence and