"zone of helpfulness", and personality style and how it relates to communication. The training will be offered utilizing a combination of education strategies including web-based video and return demonstration with clinical managers.

Evaluation: The training will be evaluated using pre and post measures of BMT nurses' confidence and confidence in providing psychosocial support to patients and families. Data will be collected at baseline and at three and six months post communication skills training.

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The Role of Occupational Therapy and Its Impact on Quality of Life for the Pediatric Stem Cell Recipient

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Clinical Question (in PICO format)

P (Population/Problem) Among school aged children (3-18 years of age) receiving a stem cell transplant (SCT)*

I (Intervention) Does occupational therapy intervention(s)

C (Comparison)

O (Outcome) Limit the negative affect of SCT on a patient's quality of life?

Target Population for the Recommendation (Inclusion / Exclusion Criteria for the recommendation)

Preschool (3 years) to young adult (18 years) who are admitted to an inpatient unit to undergo SCT in the protected environment

Background / Purpose of BESt Development

SCT is a highly risky and aggressive therapeutic approach for an assortment of formerly incurable malignancies, hematological disorders, genetic disorders, and metabolic storage diseases that have evolved dramatically in the past 25 years, advancing at a rapid pace as scientific discoveries are transformed into pediatric clinical settings (Tanzi 2011 [1b]). Throughout the evidence, it is understood that there are three phases of SCT, which consist of pre-transplant, inpatient hospitalization and post-transplant. This review focuses on the acute, inpatient phase of SCT, including when the patient is hospitalized in the protected environment (PE). Evidence was reviewed with the objectives to delineate the roles and responsibilities of the OT during the inpatient phase of SCT, while also improving understanding of how the role of OT can impact HRQOL.

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Determinants of Early and Late Transfusion Burden after Hematopoietic Stem Cell Transplantation (HSCT): An Analysis of 174 Transplant Recipients from a Single Center

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Aim: Transfusion burden after HSCT in the modern era may differ from that reported in the early literature regarding bone marrow transplantation. We sought to quantify the red cell (RC) and platelet transfusion burden associated with HSCT at our center and to identify factors associated with increased transfusions after transplant.

Methods: Patients were included who underwent first allogeneic HSCT at our center from 01/2004-12/2011. The cumulative number of RC and platelet transfusions for each patient was recorded at days 30, 90 and 365 post-transplant. Products were transfused according to clinical need, usually to maintain hemoglobin >80mg/dL and platelets >10x10e6/L. Single donor apheresis platelets were used. Donor-recipient pairs were ABO-identical, minor incompatible (donor antibodies to recipient red cell RC) or major incompatible (recipient antibodies to donor RC).

Results: 174 patients underwent HSCT for acute leukemia (47%), other hematological malignancy (44%) or other diagnosis (3%) at a median age of 42 years. Conditioning regimens were myeloablative in 138 (80%) and reduced intensity in 34 (20%). A median of 12 (range 2-117) ABO group and antibody screen assays were performed per patient between D0-D365. All patients received at least one unit of either RC or platelets. The median number of both RC and platelet units transfused between D0-D30 was 4 each (range: 0-20 and 0-32 respectively) and this was associated with patient and transplant characteristics (Table). Post-transplant transfusions were not influenced by recipient age, sex or conditioning regimen. Of 162 patients alive at day 31, 45 (28%) received RC and 37 (23%) platelet transfusions between D31-D90. Cord blood recipients and those who developed grade 2-4 acute GVHD were more likely to receive both RC (p = 0.03 & p = 0.01, respectively) and platelets (p = 0.005 & p = 0.01) during this period. After D90, relapse prior to D365 was the only factor influencing both RC and platelet transfusions (p < 0.001 for both).

Conclusion: The overall transfusion burden after allogeneic HSCT at our center was lower than we expected. Patients with advanced malignancies, ABO incompatible donors, and unrelated or cord blood donors required more transfusions early post-transplant, while GVHD and relapse were associated with transfusion after D30. These findings will inform our clinical practice and assist the transfusion laboratory to optimize cost-effectiveness and efficiency.

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Effects of Calcineurin Inhibitors on Urinary Sodium Excretion Early after Allogenic Hematopoietic Stem Cell Transplantation

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Transfusions between D0-D30

	N patients	Red cells (median units)	P value	Platelets (median units)	P value
Disease stage: early vs intermediate vs advanced	42 vs 25 vs 106	2 vs 5.5 vs 4	0.08	3 vs 4 vs 5	**0.02**
Donor: ABO identical vs minor vs major incompatible	98 vs 33 vs 43	4 vs 6 vs 6	**<0.001**	4 vs 6 vs 4	0.15
Donor: matched related vs unrelated	82 vs 90	4 vs 4.5	0.05	3 vs 5	**0.003**
Stem cell source: peripheral blood vs marrow vs cord blood	153 vs 14 vs 7	4 vs 4 vs 11	**0.003**	4 vs 7 vs 16	**<0.001**