Expanding Physical Therapy Services in HSCT: Benefits for Patients and Opportunities for Research
Adrienne Banavage 1, Sara Yoder 1, Lisa Huntsinger 1, Jody K. Reyes 2, Christina Sheffield 1, 1 University of Virginia Health System, Charlottesville, VA; 2 Cancer Center, UVA Health System, Charlottesville, VA; 1 University of Virginia Health system, Charlottesville, VA

Topic Significance & Study Purpose/Background/Rationale:
In 2015, an NCI designated cancer center added physical therapists to the team caring for patients undergoing hematopoietic stem cell transplant (HSCT).

Methods, Intervention, & Analysis:
In the pilot, patients were evaluated and treated post-transplant in the infusion center. Prior to this, HSCT patients were seen by physician referral only, during their inpatient admission. These patients were evaluated pre- and post-transplant in the following domains: grip strength, five times sit-to-stand, the six-minute walk test and gait speed. Participating patients showed improvement across all domains from the time of the initial assessment to the time of discharge. Compared to healthy normal patients, all stem cell transplant patients performed poorly on these functional tests. This pilot led to changes including the referral of all inpatient HSCT patients for physical therapy with goals of mitigating post-transplant deconditioning and fatigue.

Based on these results a multidisciplinary team came together to discuss research opportunities around the expansion of physical therapy services for HSCT patients. The team identified the value of investigating the impact of this structured exercise program on the patients’ physical and emotional well being.

Findings & Interpretation:
The hypothesis: patients undergoing HSCT will return to their pre-transplant performance level on standardized outcome measures within 100 days post-transplant if they perform approximately 150 minutes of moderate intensity activity and 2 days of resistance training each week following their transplant. In addition, patients were provided a Fitbit to track activity time. The PROMIS 29 tool was introduced to gather data regarding the patient’s perception of their physical and emotional function. The perceptions will be evaluated using the PROMIS 29 questionnaire. The measurements will be collected pre-transplant, 7-10 days after transplant, 30-40 days after transplant and at 90-100 days after transplant.

Discussion & Implications: This study has been approved by the local Institutional Review Board and data collection is currently underway.