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Hematology, Oncology, and Transplant Patient Volume Rise Sharply in 2015

The Division of Pediatric Hematology, Oncology, Marrow and Blood Cell Transplantation has experienced tremendous growth over the past decade, and recent data demonstrates the division continues to grow at an impressive rate. In 2015, outpatient office visits have increased 27%, while infusion center visits have increased 59%, year to date compared to 2014. The infusion center administers chemotherapy, red blood cell and platelet transfusions, IV pain medications, and other treatments in the outpatient setting, giving patients the opportunity to avoid hospitalization, even when they require complex medical care. The steep rise in outpatient visits has been accompanied by a similar rise in the inpatient census, which is also on pace to record its highest yearly volume in the division's history. Dr. Adam Levy, Medical Director of the subspecialty clinics commented, "This is a total team effort and is a testament to the outstanding care our staff and faculty provide our patients and their families." The faculty are now also seeing patients at the Hutchinson Metro

Center, which increases the division's capacity to serve the rapidly expanding patient population. Special thank you to the infusion nurses, who continue to provide superior care while caring for a record number of patients and families.



DaHunt for the Cure Hosts Record Fundraiser for Oncology Program

On September 18th DaHunt for the Cure, led by Charlie and Diane Medici, held its yearly clay-shooting event to raise money to support oncology patients and families treated at CHAM. The event was a tremendous success as it hosted a record number of supporters and raised a record amount of money. Dr. Michael Roth. Director of the REACT Program for survivors of childhood cancer commented, "The amount of time and effort Charlie and Diane and the rest of the DaHunt for the Cure Team have spent supporting our program is absolutely incredible. Over the past few years, DaHunt has raised over \$200,000 for the REACT program and the Heme/Onc Division, which has been used to preserve patients' fertility, support neurocognitive testing and school re-entry, fund survivorship research and patient education, as well as support numerous other activities." Special thank you to Megan Cerezo and the Events Team for all of their hard work organizing the event! www.DaHuntfortheCure.com



Researcher Receives FDA Grant to Improve Outcomes in Sickle Cell Pain Crises

Dr. Deepa Manwani, Director of Pediatric Hematology, has been awarded a \$1.6 million R01 grant from the Food and Drug Administration to conduct a Phase II study assessing the efficacy of intravenous gamma globulin (IVIG) on diminishing the length and intensity of sickle cell pain crises. The grant builds upon the Phase I study conducted by Drs. Manwani, Shi, and Frenette at Montefiore-Einstein in which a safe dose of IVIG was determined. During that study, correlative translational studies demonstrated IVIG inhibits the ability of white blood cells to bind circulating red blood cells, a process believed to contribute to the development and persistence of pain crises. Dr. Manwani noted, "Pain crises cause significant morbidity in children with sickle cell disease. The long duration and high severity of crises frequently leads to long hospitalizations, decreased quality of life, and many missed school days. Novel therapeutic approaches, attacking the biologic causes of pain crises, are needed to improve outcomes for these children." The R01 grant is funded through 2019.



Sickled

IVIG

RBC

In patients without sickle cell disease, the WBC rolls along the blood vessel wall and does not frequently adhere to the RBC.

In patients with sickle cell disease, the sickled RBCs damage the blood vessel wall. WBCs adhere to the damaged wall and also bind the RBCS. This contributes to the development of painful crises.

IVIG binds to the WBC and sends signals to the cell to decrease the interaction between the WBC and the RBC. In addition, in preclinical models, IVIG decreases the adherence of the WBC to the blood vessel wall.

Publications

- Will B, Vogler TO,... Roth M, van Oers J, Schaetzlin S, McMahon M, Edelmann W, Verma A, Steidl U. (2015). Minimal PU. 1 reduction induces a preleukemic state and promotes development of acute myeloid leukemia. *Nature medicine*. In Press
- Verma A, Morrone K. (2015) Thrombocytopenia in MDS: epidemiology, mechanisms, clinical consequences and novel therapeutic strategies. *Leukemia*. In Press.