

First Bone Marrow Transplant for Sickle Cell Anemia at Strong Memorial Hospital

A thirteen-year-old boy with sickle cell anemia underwent a successful bone marrow transplant in August 1998 in the Bone Marrow Unit at Strong Memorial Hospital. Dr. Reggie Duerst, Associate Chief of Bone Marrow Transplantation, led the team of medical personnel responsible for this first transplant of a patient with sickle cell disease in upstate New York. At the present time, a number of medical centers

The role of marrow transplantation for treatment of sickle cell anemia in the United States is currently expanding.

are developing and implementing protocols to explore the role of bone

marrow transplantation in young patients with symptomatic sickle cell anemia who have early but not irreversible organ involvement.

The Bone Marrow Treatment Center at Strong Memorial Hospital is a collaborating institution administering treatment according to a protocol developed at the Fred Hutchinson Cancer Research Center at the University of Washington in Seattle, Washington. To date, 49 children have been enrolled in the protocol, including the patient at Strong Memorial Hospital.

Because of the risks of bone marrow transplantation, only sickle cell patients who have developed specific complications are being considered for this therapy.

Criteria for this protocol include

- patients with sickle cell anemia less than 15 years of age with a tissue identical family member donor.

Complications of sickle cell listed for eligibility in the protocol include:

- a neurological event (stroke) or neurological defect lasting more than 24 hours
- sickle cell lung
- sickle cell nephropathy
- acute chest syndrome with recurrent hospitalizations
- osteonecrosis of multiple joints or
- chronic debilitating pain

This boy was considered eligible for enrollment because of a history of recurrent acute chest syndrome, with increasing severity of each episode. His 6-year-old brother was his marrow donor. The total length of hospitalization, including pre-conditioning therapy required by protocol prior to the transplant, was five weeks. After several months of home tutoring, he has returned to school and to many of his favorite activities.

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Strong Sickle Program
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Regarding laboratory diagnosis, newborn screening and genetic counseling, contact:

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