



“The team at Children’s National was able to break down what we were going through. It was a well rounded experience.”

Jackie, mother of Bryce

Bryce received a transplant at age 5 from an unrelated donor. Today, Bryce loves fishing and swimming, and looks forward to playing football.

“The care our family received was top quality. We would recommend the hospital and the team to any family planning to have a transplant.”

Sharee, mother of Gabriella

Gabriella's donor was her older sister Breanna. She received her transplant at the age of one, and is doing well today.



“Her treatment was wonderful. Her brother’s cells worked - they beat her cells up.”

Valerie, mother of Rachael

Rachael received a transplant at age 10 from her oldest brother. Rachael is happy and no longer experiences pain.



Children's National™

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Sickle Cell Disease

Bone Marrow Transplant Program

Contact Us

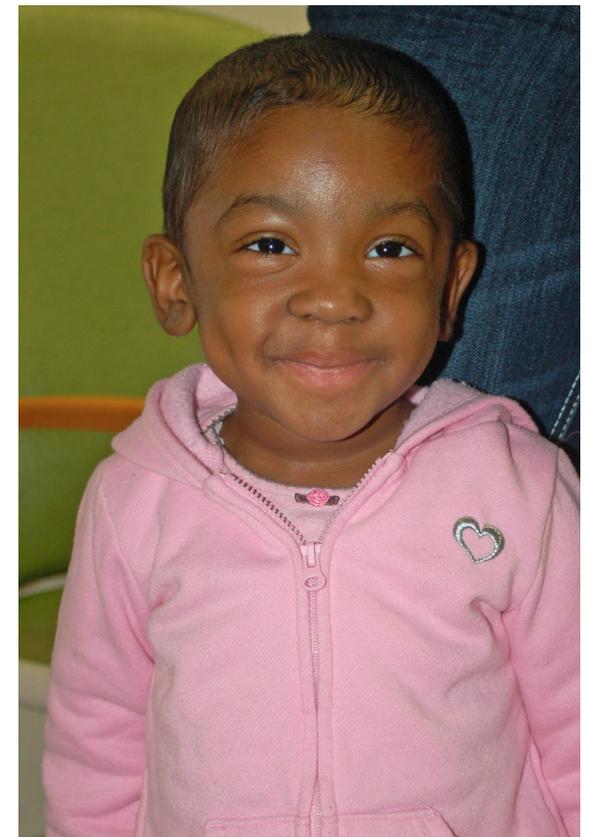
Children with sickle cell disease undergoing transplantation will be seen by a comprehensive team led by Allistair Abraham, MD, our transplant expert dedicated to sickle cell disease.

Allistair Abraham, MD
aabraham@ChildrensNational.org

Jacqueline Dioguardi, PA-C
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202-476-6779

All patients also can be referred by contacting our transplant coordinator:

Samrawit Berhane
202-476-5456



Our Program



The Sickle Cell Disease Program at Children's National Health System is among the largest pediatric sickle cell disease programs in the country. Each year we treat more than 1,400 children and young adults, from birth to age 21, with all types of sickle cell diseases.

Early diagnosis and prevention of complications are critical in sickle cell disease treatment, and the multi-disciplinary hematology team offers a variety of therapies. However, blood and marrow transplantation is the only treatment option available today that can cure sickle cell disease. Study results show there is a 95 percent chance a patient will be cured in matched related transplants.

Since 1988, Children's specialists have performed more than 1,000 BMTs.

How BMT Works

Bone marrow is the organ in which all circulating blood cells, including red blood cells are produced. A child with sickle cell disease produces Hemoglobin S or sickle hemoglobin, which distorts the shape of red blood cells into crescent-shaped, fragile cells that clog small blood vessels, leading to complications associated with sickle cell disease, like pain crisis, acute chest syndrome, and stroke.

A successful bone marrow transplant (BMT) results in the replacement of the recipient's or patient's bone marrow with healthy bone marrow from the donor. In preparation for a bone marrow transplant, high doses of chemotherapy medicines are used to destroy the patient's bone marrow to create space for the new marrow to grow. This is then followed by an intravenous infusion of bone marrow containing blood-forming stem cells from a donor who does not have sickle cell disease. The new bone marrow then produces healthy red blood cells resulting in a resolution of the symptoms of sickle cell disease.

If no significant problems occur, the entire BMT procedure requires a hospitalization of about five to six weeks. It can be associated with some very serious risks. Risks include: graft versus host disease (GVHD), infertility, and organ toxicity. If severe, these risks can be life threatening.

Finding Better Treatments

Children's Sickle Cell Program is dedicated to finding new and more effective therapies by participating in clinical trials sponsored by the National Institutes of Health and other national, multicenter clinical research initiatives. We have a number of critical trials open that study transplantation of unrelated donor marrow for patients with sickle cell disease and prior complications.

Areas of investigation include using reduced doses of chemotherapy ("reduced intensity conditioning") to minimize short-term and long-term side effects, and use of matched, unrelated donor bone marrow transplant and cord blood transplant to increase the availability of donor options for those who do not have a matched sibling donor.

