



## **Stem Cell Transplantation “Vital Option” for Sickle Cell Patients**

Sickle cell patients who receive stem cell transplants from tissue-matched siblings have a high rate of disease-free survival, according to results of a recent study from the Center for International Blood and Marrow Transplant Research. Based on their findings, the authors recommended children with sickle cell disease be screened early for the procedure.

Sickle cell is a painful and deadly blood disease that affects millions worldwide, including an estimated 70,000 Americans. People who inherit the disorder have abnormally shaped red blood cells that become trapped in small veins and arteries, reducing blood flow to organs and tissues. The effects can range from anemia to stroke to early death. On average, Americans who have sickle cell disease die in their mid-40s.

This study, titled “Matched-related donor transplantation for sickle cell disease: report from the Center for International Blood and Transplant Research,” tracked the progress of 67 patients from 30 transplant centers worldwide over a 13-year period (1989–2002). Out of the 67 patients, who ranged from 2 to 22 years old, 64 were living 5 years after the procedure, and the vast majority (55 patients) were free of sickle-cell symptoms. These new findings confirm earlier research that showed stem cell transplantation is a “vital treatment” option for sickle cell disease, researchers said.

The long-term outcomes of patients who undergo stem cell transplantation with a family-matched donor are “encouraging,” said the researchers, who published their findings in the March 2007 edition of the British Journal of Haematology. The procedure “offers a very high survival rate, with few transplant-related complications and the elimination of sickle-related complications in the majority of patients who undergo this therapy.” The researchers said the “next logical step” would be to study the safety and feasibility of using unrelated donors, thus making stem cell transplantation available to more children who have this disease.

For more data and statistics and additional support resources, talk with your doctor, or visit [www.marrow.org](http://www.marrow.org). To read the full study, please visit <http://www.cibmtr.org/ReferenceCenter/Patient/PatientSummaries/pages/index.aspx>.

Source: Matched-related donor transplantation for sickle cell disease: report from the Center for International Blood and Transplant Research. Panepinto JA, Walters MC, Carreras J, Marsh J, Bredeson CN, Gale RP, Hale GA, Horan J, Hows JM, Klein JP, Pasquini R, Roberts I, Sullivan K, Eapen M, Ferster A, On behalf of the Non-Malignant Marrow Disorders Working Committee, Center for International Blood and Marrow Transplant Research. British Journal of Haematology, 2007, 137, 479–485. [First Published online 24 April 2007]