Sickle Cell Disease Fact Sheet

Q&A

What is Sickle Cell Disease? And how common is it?

Sickle Cell Disease (SCD) is an inherited blood disorder that occurs more commonly in African Americans. In fact, about 1 in 500 African Americans are born with the disease. Also, 1 in 1,400 Latinos are born in the U.S. with SCD each year. SCD is inherited in the same way physical traits like eye and hair colors are inherited. The hemoglobin in patients with SCD is damaged and causes red blood cells to stiffen and twist into jagged "sickle" shapes.

What medical problems are associated with SCD?

The distorted red blood cells in SCD patients block small blood vessels and can lead to:

- pain in arms, legs, chest and/or abdomen
- stroke
- lung tissue damage (acute chest syndrome)
- serious infections
- damage to heart, kidneys and liver
- anemia

Who is at particular risk?

Young children with SCD are at increased risk for bacterial infections due to spleen damage. Both children and adults with SCD are at risk for strokes that can cause lasting disabilities such as learning difficulties and physical impairment. Other problems can include vision impairment and blindness, slow growth and delayed puberty, difficulty breathing, chest pain and fever.

Is there a cure for SCD?

At present the only cure for SCD is a stem cell transplant, a high-risk procedure.

What other treatments are available for SCD patients?

Multiple red blood cell (RBC) transfusions of "normal" blood can protect SCD patients from some of the acute and chronic complications of the disease. How? Multiple transfusions of normal blood can prevent a SCD patient's body from producing sickled red blood cells and improve oxygen-carrying capacity.

Are there any consequences of receiving multiple transfusions?

A high proportion of SCD patients receive multiple transfusions from donors of different ethnic backgrounds and become immunized against different parts of red cells called antigens. To reduce this problem, many doctors recommend SCD patients receive blood from donors of the same racial group who are more likely to have the same antigens as SCD patients.

Is there a problem providing blood for sickle cell patients?

Yes. One major problem is supply. While African Americans comprise nearly 30% of the NY/NJ population, less than 10% of our donors are African American. Yet because red cell antigens are similar within ethnic groups and are therefore more likely to be found among specific ethnic groups, it can be difficult to find compatible red cell antigen-matched blood for SCD patients when they need it because so few African Americans donate blood.

Is there a test for SCD?

Yes. Since 1979 all newborns in NY & NJ are screened at birth for SCD. Health care providers can also screen anyone interested in their sickle cell status and if they are a carrier. About 8-10% of African Americans are carriers of the sickle gene, and people of Latin and Caribbean descent may also be carriers.

What can people do to help patients with SCD?

DONATE BLOOD. The probability of finding a precise transfusion match for a SCD patient who is immunized is increased by screening donors of the same racial background. Therefore, African American donors are the best source for compatible, antigen-matched blood for SCD patients.

Sickle Cell Testing & Information

- Brookdale University Hospital: 718-240-5904
- Columbia College of Physicians & Surgeons: 212-305-2466
- Hackensack University Medical Center: 201-996-5437
- Harlem Hospital Center: 212-939-1701
- St. Luke's-Roosevelt Hospital: 212-523-3103
- St. Peter's Hospital: 732-745-6674
- The Cancer Institute of New Jersey: 732-235-7552

New York *BloodCenter*
www.nybloodcenter.org

To donate blood or schedule a blood drive call 1-800-933-BLOOD

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July 2006