Newborn Screening FACT Sheet

Sickle Cell Anemia
(Hb SS)

What Is Sickle Cell Anemia?

Sickle Cell Anemia (Hb-SS-Disease) is the most common Sickle Cell Disease. It clogs blood vessels and causes severe pain. It can also cause problems such as organ and tissue damage. Other common Sickle Cell Diseases are Hb-SC-Disease and sickle thalassemias.

What Causes Sickle Cell Anemia?

Sickle Cell Anemia is an inherited blood disease. It is very serious for infants and young children. A person with this life-long disease has abnormal red blood cells. Changes in these cells cause them to be shaped like a “sickle.” These red blood cells are very weak and sometimes rigid. They can get trapped in the blood vessels and harm blood flow. This can cause sudden pain anywhere in the body. It can also damage body tissues and organs over time.

What Symptoms or Problems Occur With Sickle Cell Anemia?

Many young children with sickle cell anemia are rarely sick. Sometimes serious problems happen that can cause death. These problems are:
- septicemia (infection of the blood)
- acute splenic sequestration (sudden enlargement of the spleen and rapid drop in the blood count)

Other serious problems can include:
- pneumonia
- organ damage
- painful erections in men
- swelling of hands and feet
- problems during pregnancy
- chest pains and trouble breathing
- jaundice (yellow skin)
- blood in urine
- fever
- stroke
- leg ulcers
- infections
- gallstones
- anemia
- pain
- kidney failure

What is the Treatment for Sickle Cell Anemia?

Medication – Infants and young children with Sickle Cell Anemia sometimes get infections of the blood. Penicillin can prevent death from this. When given twice a day, penicillin can kill bacteria before they grow in the blood and cause very dangerous infections.

Fluids – It is important to drink plenty of fluids to keep blood vessels open.

Things to Remember

Children with sickle cell anemia can have periods of pain. This happens more in older children, but sometimes happens in babies. Usually the pain seems to be in the bone. Sometimes it is in the stomach. Such pain is not dangerous. It usually goes away after several hours or days.

Medications such as acetaminophen (such as Tylenol) or ibuprofen (such as Advil) often help the pain. Sometimes children won’t use the part of the body that hurts, even when it feels better. Don’t force your child to stand or walk. Children will be active again when they feel like it. Rest and drinking plenty of liquids can help the pain. A heating pad can also help. If a child’s pain isn’t better after taking medicine at home, he or she may need to be treated with stronger medicine in the hospital.

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