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Sickle cell disease: what are the treatment options?

People who have sickle cell disease are born with it. It can cause pain, increase the chance of infections (particularly in children) and sometimes lead to serious health problems.

But many people with sickle cell disease feel well a lot of the time.

Below we look at treatments to help people cope with the problems caused by sickle cell disease. To learn more about what happens in sickle cell disease, see the leaflet *Sickle cell disease: what is it?*

Preventing infections in children

In children under 5 years old, regular doses of the antibiotic penicillin can help reduce infections. Penicillin doesn't normally cause serious side effects, but some children are allergic to it. Children allergic to penicillin are given a different antibiotic.

Vaccines can also help prevent infections. Your doctor might suggest a vaccine to protect your child from illnesses such as pneumonia and meningitis.

These vaccines don't usually have serious side effects, but they can cause a mild fever for a few hours after they are given.

Treatments for pain

A drug called hydroxyurea (also called hydroxycarbamide) can reduce the number of painful attacks in adults. And it can reduce the amount of time children with sickle cell pain need to spend in the hospital.

Hydroxyurea can have side effects in some people, including:

- a drop in white blood cells (cells that fight infection)
- hair loss
- a rash, and

- an upset stomach.

If you're traveling in a country where malaria is common your doctor may recommend anti-malaria drugs. That's because malaria can trigger sickle cell pain.

If you get mild pain your doctor may suggest an over-the-counter pain reliever such as acetaminophen or ibuprofen.

Aspirin should **not** be given to children under 16.

For moderate pain your doctor may give you or your child a weak opioid medication such as codeine. But codeine should not be given to children age 12 and younger.

Your doctor might also prescribe a strong nonsteroidal anti-inflammatory drug (NSAID).

For severe pain your doctor may recommend a strong opioid pain reliever, such as morphine. You'll have to go to the hospital to be given morphine. You may also be given extra fluids from a drip (also called intravenous infusion or IV) and oxygen to breathe in through a mask.

Doctors often prescribe a combination of pain relievers. All pain medications can have side effects. Ask your doctor to explain the possible side effects.

Other treatments

If you become seriously ill because of sickle cell disease you may need a blood transfusion. A transfusion can help with problems linked to sickle cell disease, such as severe anemia, lung problems, and strokes (where a blood vessel in your brain gets blocked).

Most people with sickle cell disease will need a blood transfusion at some point.

Regular blood transfusions can prevent strokes in children who are at risk. A brain scan called a transcranial doppler (TCD) ultrasound can find out if your child is at risk of having a stroke.

A bone marrow transplant can sometimes cure sickle cell disease, but it isn't used often. This is because it isn't suitable for everyone. For example, there's a risk of serious side effects, including death. And few people have a suitable donor.

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