If you think your child would be helped by hydroxyurea, please discuss this with your sickle cell doctor or nurse at your next clinic visit. It is helpful to write down the number of painful crises that your child has had over the past year. This includes crises that required a hospital stay, emergency room visit, or that caused your child to miss time at school.

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Hydroxyurea Therapy in Sickle Cell Patients

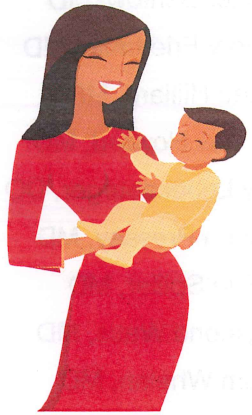
UAB DIVISION OF PEDIATRIC HEMATOLOGY AND ONCOLOGY

Hydroxyurea

Hydroxyurea is a drug that is used to help sickle cell patients who have a lot of problems with pain and/or acute chest syndrome (ACS). Hydroxyurea was originally made as an anti-cancer drug used to treat many types of cancer. It works by changing the way cells grow. It is usually given in a capsule that can be taken by mouth.

Fetal hemoglobin is the kind of hemoglobin you have when you are born. During an infant's first year of life, the fetal hemoglobin they are born with slowly decreases. At the same time, their sickle hemoglobin increases. This may lead to pain episodes or infection or other problems from sickle cell disease.

Hydroxyurea increases the amount of fetal hemoglobin in the blood. Having more fetal hemoglobin helps the red blood cells not sickle as often. This means that a child with more fetal hemoglobin with have less problems from his or her sickle cell disease.



Hydroxyurea also works by making the blood less sticky in sickle cell patients. Most children with sickle cell disease have a higher white blood cell count and platelet count. This makes the blood more sticky and more likely to sickle. Hydroxyurea decreases both the white blood cell count and the platelet count. This makes the cells not stick together as often.

Hydroxyurea cuts the number of crises in half in people who have more than 3 crises a year. It also helps to prevent acute chest syndrome or pneumonia and decreases your child's chance of receiving a blood transfusion.

Your child may need hydroxyurea if her or she has 3 or more painful crises and/or 2 or more episodes of acute chest syndrome per year. Even if your child has not been in the hospital for pain, but has missed a lot of school days for painful crises, he or she may benefit from hydroxyurea.

There are a few precautions when taking hydroxyurea. Because hydroxyurea may decrease blood counts, your child will need to have lab work checked fairly often. This usually means a lab visit at least once per month for the first 6 months.

Most of our patients taking hydroxyurea tolerate this medication very well. However, there are potential side effects such as nausea, vomiting, loss of appetite, diarrhea, hair loss, skin rash, and sore throat. Most children that take hydroxyurea do not have these problems. In fact, many of them have improved growth.

Patients on hydroxyurea must take their medication as directed by their sickle cell doctor to see positive results. It also important to remember that positive results will not be immediate. It may take several months before this medicine starts to cut down on pain crises. Patients must not stop taking hydroxyurea unless directed to do so. It must be taken every day to prevent crises. This is not a medicine that treats crises once they start.