Newborn Screening ACT Sheet

F,A, Other (Probable Unidentified Hb Variant)

Unidentified Hemoglobin Variant

Condition Description: In addition to the normal hemoglobin F (fetal) and A (adult) found by the newborn screen, an unidentified abnormal hemoglobin variant was also found. However, most unidentified variants have no clinical or hematological significance, and usually a referral to hematology is not needed.

You Should Take the Following Actions

- **Contact the family to inform them of the screening result.**
- **Evaluate for jaundice (beyond the first month of life), cyanosis, anemia, splenomegaly, and poor feeding or weight gain.**
- **Review family history for anemia, bleeding disorders and splenectomy.**
- **Repeat newborn screen if second screen has not yet been done.**
- **At 3-6 months of age, obtain complete blood count, MCV, blood smear, and reticulocyte count. Consult with pediatric hematologist if results are abnormal, usually they are not.**

Diagnostic Evaluation: Follow-up labs include CBC, MCV, blood smear, and reticulocyte count as described above.

Clinical Considerations: If the CBC is normal and baby shows normal growth and development patterns, then no further testing is needed. In some cases, the Hb variant may present altered oxygen affinity or be chemically unstable, which may cause anemia, erythrocytosis (high hemoglobin concentration) or hemolysis. In such situations, further evaluation by a pediatric hematologist is necessary.

Additional Information:

Sickle Cell Information Center: Variant Algorithm
https://scinfo.org/care-paths-and-protocols-children-adolescents/unidentified-hemoglobin-variants

How to Respond to Hemoglobin Variant on a Newborn Screen PDF
http://www.cookchildrens.org/SiteCollectionDocuments/HealthCareProfessionals/Hemoglobin-Variant.pdf

Utah Department of Health
http://health.utah.gov/newbornscreening/Disorders/HB/Unidentified/FactSheet_Provider_HbUnidentifiedTrait_En.pdf

Newborn Screening FACT Sheet

Unidentified Hemoglobin Variant
(Hb-F,A, Other)

What is Hemoglobin?

Hemoglobin is a protein found in the red blood cell that carries oxygen throughout the entire body. The most common type of hemoglobin is A (Hb A), which is adult hemoglobin. Newborns also produce Hb F or fetal hemoglobin, as well as some Hb A. Approximately 3 to 6 months after birth the fetal hemoglobin is no longer made, so the child only produces Hb A.

What is a Hemoglobin Variant?

There are hundreds of hemoglobin variants (or changes) described in the current literature. The variant found in your baby has not been identified, simply because there are hundreds of hemoglobin variants that are benign and do not cause harm. **These variants are common and will not turn into disease.**

Treatment

Most hemoglobin variants require no treatment, but rarely they may cause mild anemia and your baby's pediatrician may refer them to a pediatric hematologist who specializes in blood disorders. In addition, always take your baby to the pediatrician for well checks, vaccinations, and sick visits to make sure they stay healthy as they grow.

Disclaimer: This information is adapted from the Sickle Cell Information Center, the Utah Department of Health and UT Southwestern Children's Medical Center Dallas 05/2015