

## Texas DSHS Handout “F, A, Other”

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For the Texas State Newborn Screening Hemoglobinopathy Consultants

This baby’s newborn screen shows an “F, A, Other” pattern. This means that the child has an abnormal hemoglobin trait but the normal fetal “F” and adult “A” hemoglobins predominate. The “other” hemoglobin was probably inherited from one of the parents, and since most of these hemoglobin variants are of no clinical significance the parent is generally not aware that they have it. There are hundreds of hemoglobin variants, most named by a letter of the alphabet or the city in which it was first identified. If there are no physical or blood count abnormalities caused by the abnormal hemoglobin, it is not necessary to identify it by name.

Occasionally, however, the abnormal hemoglobin may cause problems, such as anemia due to hemolysis, alteration in oxygen affinity (when hemoglobin holds on to oxygen either too tightly or loosely), or when the iron within it is chemically altered causing a blue or gray color in the baby’s skin (methemoglobin). Most of the time, the abnormal hemoglobin causes no problem at all.

The Pediatric Hematologists who are consultants to the Texas Newborn Screening Program recommend that a baby who has an “F, A, Other” pattern be screened by their primary care provider (PCP) to determine if evaluation by a hematologist is required. Usually hematologist consultation is NOT required. The PCP screening should consist of:

- Medical History – Has the baby been persistently jaundiced, cyanotic (blue or grey color to the skin) or had trouble with poor feeding or weight gain? Is there a family history of anemia, splenectomy for reasons other than trauma, or transfusions not related to bleeding?
- Physical Examination – Is there evidence of jaundice (beyond the first month of life) or cyanosis? Is the spleen palpable?
- Blood Count – In addition to the screening hemoglobin recommended for all children at 9-15 months of age obtain a complete blood count (including hemoglobin, red cell number, MCV) and reticulocyte count at 3 to 6 months of age when the physiologic decrease in hemoglobin has resolved.

If the baby is growing and developing normally and has a normal physical examination, no family history of blood disorder and normal blood count, there is no need for further testing. The family should be counseled that the newborn screening test detected a mild medical curiosity in their child’s blood not associated with any health consequences now or in the future. However, there is a 50:50 chance that this child will pass the trait along to their children, just as a parent passed it to this child. While a hemoglobin electrophoresis, HPLC hemoglobin variant detection test, or gene sequencing may provide a name for the specific abnormality, the counseling and clinical care would usually be exactly the same as if the “Other” hemoglobin remained unnamed.

If you have questions about a specific child, please contact one of the hematology consultants to discuss your concerns.

*This information sheet was prepared by members of the Hematology staff at UT Southwestern and Children’s Medical Center Dallas.*

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