

ACT SHEET FOR POSITIVE NEWBORN SCREENING RESULT (FAD) HEMOGLOBIN D TRAIT (Hb AD)

Disease Category: Hemoglobinopathy

Meaning of the Screening Result: Hemoglobin FAD pattern on newborn screen is highly suggestive of Hemoglobin D trait. However, IEF (the test used for screening) does not quantitate results. Without quantitation those newborns with A and D hemoglobins where the D hemoglobin is nearly as much as the A hemoglobin, could be at risk of a thalassemia.

YOU SHOULD TAKE THE FOLLOWING ACTIONS:

- Contact the family to inform them of the screening result and to offer education and counseling.
- Reassure the family that infants do not have clinical problems related to the carrier state for Hemoglobin D.
- Order confirmatory testing (hemoglobin electrophoresis).
- Encourage parents to seek genetic counseling and testing as indicated.
- Report findings to Nebraska Newborn Screening Program.

Pediatric specialists in hemoglobinopathies are available through the centers at Children's Hospital (402) 955-3950 and UNMC/Nebraska Medical Center (402) 559-7257.

Condition Description: Individuals with Hemoglobin D trait are carriers of the gene for Hemoglobin D.

Clinical Expectations: Prognosis is for a normal life expectancy. Carriers are at risk for having children affected with Hemoglobin D disease, Hemoglobin S-D disease or Hemoglobin D Beta thalassemia.

Confirmation of diagnosis: Diagnosis is confirmed by hemoglobin electrophoresis and parental or DNA studies as indicated. (However, if on confirmation a thalassemia or co-existent thalassemia is identified, it is important to refer these patients to pediatric hematology for further work-up, to determine clinical significance.)

Additional information:

- Acute and Chronic Complications - www.tdh.state.tx.us/newborn/sc_guide.htm
- Grady Comprehensive Sickle Cell Center Web Site - www.scinfo.org
- Management and Therapy of Sickle Cell Disease - www.nhlbi.nih.gov/health/prof/blood/sickle/index.htm
- Sickle Cell Disease Association - www.sicklecelldisease.org
- Hemoglobinopathy Podcasts [http://feeds.feedburner.com/Pediatrics bytes](http://feeds.feedburner.com/Pediatricsbytes)

