



KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT

NEWBORN SCREENING ACT SHEET

SCREEN FOR: HEMOGLOBINS F, A & S

CONDITION: SICKLE CELL CARRIER (TRAIT)
(Hb AS)

DIFFERENTIAL DIAGNOSIS: The hemoglobins are listed in order (F>A>S) of the amount of hemoglobin present. This result is different than FS which is consistent with sickle cell anemia or FSA which is consistent with sickle beta-plus thalassemia.

METABOLIC DESCRIPTION: Generally benign genetic carrier state (trait) characterized by the presence of fetal hemoglobin (F) and hemoglobin A and S.

ACTION TO BE TAKEN:

- Contact the family to inform them of the screening result and offer education and reassurance that infants and young children do not have clinical problems related to the carrier state for hemoglobin S.
- Repeat screen or confirm result by alternate assay.
- Offer family members referral for hemoglobinopathy testing and genetic counseling.
- Report findings to newborn screening program.

CONFIRMATION OF DIAGNOSIS: Hemoglobin separation by electrophoresis, isoelectric focusing or HPLC showing FAS pattern. Family or DNA studies may be used to confirm genotype.

CLINICAL EXPECTATIONS: Infants are usually normal at birth. Prognosis is good, with a normal life expectancy. Carriers are at risk for having children affected by sickle cell disease.

REPORTING: Report diagnostic result to family and Kansas NBS program.

CONSULTANTS:

Dr. Stephen D. Smith
Pediatric Hematologist
KU Dept. of Pediatric Hematology
Kansas City, KS
Office: 913-588-6340

Dr. Jakica Tancabelic
Pediatric Hematologist
Cotton – O'Neil Clinic
Topeka, KS
Office: 785-270-4980

Dr. Rebecca Reddy
Pediatrician
Pediatric Faculty Clinic
Wichita, KS
Office: 316-962-2682