Provider Fact Sheet

TRAIT Result:
Blood Spot Screen Result Notification

Minnesota Newborn Screening program

FAC — Hemoglobin C Trait

The newborn screen identified fetal (F), adult (A), and abnormal (C) hemoglobin

Next Steps

Please take the following recommended actions:

- **Discuss** the result with the family at the next well-child visit, including the follow-up plan for confirmatory testing and education about inheritance.
- **Prepare** any requested referrals or resources for the family (may desire genetic counseling).
- **Collect** follow-up clinical testing. A hemoglobin electrophoresis should be performed between 9 and 12 months of age.
- **Fax** hemoglobin electrophoresis result to MDH staff at (651) 215-6285.

If you have questions about the newborn screening result or your next steps, an on-call Newborn Screening Program genetic counselor is available at (651) 201-3548.

Review with Family

MDH has mailed the family a packet of information about this result. Educate the family about the need for confirmatory testing, parental testing, and inheritance. If you are unable to answer their questions, consider referring them to a genetic counselor or pediatric hematologist. Contact information for pediatric hematologists can be found on the resource list provided.

Individuals Affected by Hemoglobin C Trait

Hemoglobin C trait occurs in all ethnic groups but is most common in individuals of West African descent.

Clinical Summary

Hemoglobin C trait is not, in itself, a disease. People with hemoglobin C trait have both normal hemoglobin (A) and abnormal hemoglobin (C) in their red blood cells. Trait is different from a hemoglobinopathy (like sickle cell disease) in which only abnormal hemoglobin is present.

Most people with hemoglobin C trait never develop symptoms. Because hemoglobin C trait rarely causes health problems, most people with hemoglobin C trait do not need treatment or change their normal activities.

Inheritance and Possible Implications

Although it is unlikely that hemoglobin C trait will pose health problems for this infant, hemoglobin C trait may have implications for family members. If both parents have a hemoglobin trait, there is a 1 in 4 (25%) chance with each pregnancy that they could have a child with a hemoglobin disorder such as hemoglobin C disease or sickle cell disease. Both of these diseases are lifelong illnesses that can result in severe anemia.

Because hemoglobin C trait and hemoglobinopathies are inherited conditions, genetic counseling should be offered.

Have you checked out our FREE hemoglobin trait resources for parents?

Parent-friendly website: www.health.state.mn.us/people/newbornscreening/families/trait.html
Education materials: www.health.state.mn.us/people/newbornscreening/materials/education.html

DEPARTMENT OF HEALTH
Newborn Screening program, 601 Robert St. N., St. Paul, MN 55155
Phone (800) 664-7772, Fax (651) 215-6285
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