### Introduction
- Newborn screening (NBS) for hemoglobinopathies allows identification of children with hemoglobin abnormalities associated with disease and initiation of referral and treatment.
- A detailed review of the NBS program for hemoglobinopathies is available on the New England Pediatric Sickle Cell Consortium website: [https://nepscc.org/health-providers/screening/](https://nepscc.org/health-providers/screening/)

### Initial Evaluation and Management by Primary Care
- NBS results are reported for hemoglobins in order of relative abundance, e.g., “FA” indicates abundance of hemoglobin F is greater than A (normal finding).
- Hemoglobinopathies are identified when hemoglobins other than F and A are present. In sickle cell anemia, the relative abundance is important in determining trait versus disease. Sickle cell trait would demonstrate an FAS pattern; sickle cell disease demonstrates an FS pattern.
- If patterns consistent with sickle cell disease (FS, FSA, FSC, FSV) are reported, the child should immediately be treated with prophylactic penicillin (125mg po BID) and referred to Pediatric Hematology.
- Bart’s hemoglobin, reported as FAB, reflects some degree of alpha-thalassemia; follow up is determined by family history and the frequency of the condition in certain ethnic groups.

### When to Refer
- Hemoglobin patterns consistent with a form of sickle cell disease (FS, FSA, FSC, FSV).

### How to Refer
- (413) 794-KIDS
- Questions for the hematologist: (413) 794-9338

### What to Expect From Baystate Children’s Hospital Visit
- Confirmatory testing, consultation, treatment and follow-up care based on the diagnosis.

---

**Authors:** Matthew Richardson, MD  
Pediatric Hematology/Oncology  
February 2019

**Contact:** Baystatechildrenshospital@baystatehealth.org