

## CP 2.5 Follow-up for Dried Blood Spot (DBS) Specimens Deemed Inadequate for Testing by NAPS Labs

**POLICY:** The adequacy or inadequacy of the Newborn Screening dried blood spot specimens is determined by the NAPS labs. Those deemed inadequate are followed up by the ASC with the same urgency as are positive screens.

### General Information

- Inadequate specimens are, for the most part, preventable, when NBS providers follow instructions on specimen collection, handling, and transport. NBS Area Service Centers are responsible for 1) following up on them to assure the babies are promptly retested, and 2) training NBS providers in correct techniques.
- **Inadequate codes:** Dried Blood Spots shall be considered inadequate for testing for the following reasons and shall be coded by numbers as follows:

#### **Inadequacy determined from appearance of spots:**

1. Circles not completely filled
2. Blood not soaked through evenly to other side of paper
3. Clots on surface of sample
4. Blood spread unevenly or layered (incorrect collection or drying apparent)
5. Blood or paper appears contaminated by spill or is unusually soiled
6. Blood is very pale
7. Blood is very dark as though heated
8. Blood is greenish as though old

#### **Inadequacy due to quality of collection or transport:**

9. Sample is too old (more than 14 days since collection)
10. Sample found unprotected in the mail
11. Blood spots are not completely dry
12. Sample does not elute

#### **Miscellaneous inadequacies not related to blood appearance or quality:**

13. Sample is not on proper collection paper
14. NBS form number on TRF does not match number on collection paper
15. Anomalous pattern of test results
16. No blood on filter paper
17. Hemoglobin concentration too low
18. Hemoglobin concentration too high
19. TRF with no blood sample and no form number
93. Sample inadequate – other reason

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- Follow-up of Inadequates on babies in regular nurseries may be assigned to coordinators, program specialists or community liaisons. Inadequates on babies in NICUs may be assigned to coordinators or program specialists.
- SIS ordinarily matches multiple specimens collected from the same baby. However, on occasion, it will not match specimens: ASCs routinely look in SIS for other specimens collected from a baby who has had an inadequate test.

**NOTE:** After specimen is submitted to the NAPS lab and entered into SIS, SIS automatically matches inadequate specimen with adequate specimen obtained, if data on TRF can be matched by the system. If SIS unable to match, Inadequate status stays on Headline Case until ASC staff matches with adequate specimen.

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### PROTOCOL:

Resp. Person	Action
NAPS Lab	<ul style="list-style-type: none"> <li>• Notifies appropriate ASC by phone or fax when sample is considered inadequate per Inadequacy Codes.</li> <li>• Enters information re inadequacy into SIS.</li> </ul>
Assigned ASC Staff	<ul style="list-style-type: none"> <li>• <b>Within 48 hours of notification</b> notifies provider (hospital, physician, midwife, etc) of inadequate specimen and offers assistance in arranging for collection of another specimen.</li> <li>• Instructs providers to obtain another specimen <u>as soon as possible, but within five (5) days.</u></li> <li>• If case summary in SIS indicates RBC transfusion before collection and baby had no screen prior to transfusion, informs provider of the option to have DNA testing done to rule out a hemoglobinopathy (See Section 3.13.10) in addition to the need for a repeat screen. Additionally, baby may have DNA testing for galactosemia if there is a family history or if baby is exhibiting symptoms of galactosemia.</li> <li>• Reviews TRF and documentation in SIS for transfusion status and checks accuracy of scanned information.</li> <li>• Calls provider regularly to remind him/her of the need for repeat test and follows until adequate specimen is collected.</li> <li>• Periodically scans SIS to find other specimens collected from the baby and then matches them to the inadequate test (SIS ordinarily automatically matches babies, but occasionally does not).</li> <li>• Follows case until an adequate specimen is obtained and results are documented in SIS.</li> </ul>