

Newborn Screening and Childhood Lead Poisoning Prevention

SPECIAL CARE NURSERY/NICU RECOMMENDATIONS

Purpose: Infants in a special care/intensive care nursery due to prematurity, low birth weight, or illness may need to have additional blood spot filter paper specimens collected.

Nurseries should follow these procedures for infants in special care/intensive care settings:

1. Collect the initial dried blood spot specimen between 24 – 48 hours of age **even if NPO**.
2. **Exception:** Collect a dried blood spot specimen immediately (even at less than 24 hours of age) if:
 - a. The infant is to be transferred to another facility. (If unable to collect prior to transfer notify the receiving facility). **OR**
 - b. The infant is to be transfused collect a dried blood specimen prior to transfusion.
3. Infants weighing ≤ 2500 grams at birth should have a repeat blood spot specimen collected at 30 days of age to rescreen the thyroid stimulating hormone (TSH). Infants weighing ≤ 2500 grams at births can have a slow rise in their TSH levels. Specimens collected between 2 and 6 weeks of life will be accepted for this repeat.
4. Critical Congenital Heart Disease (CCHD) results may be submitted on any one of the repeat dried blood spot specimens if it was not submitted on the initial specimen.
5. Hearing results may be submitted on the repeat dried blood spot specimen if not submitted on the original or carbon copy slip that is attached to the filter paper. Note: Hearing results **SHOULD** be submitted on the initial or repeat dried blood spot specimen if possible. ONLY submit on the “carbon copy slip” if there is not a dried blood spot specimen to be collected or it has already been submitted to the lab. If there is NOT a “carbon copy slip” or repeat dried blood spot specimen then use the “Hearing Only” form which can be found
online: [https://www.tn.gov/content/dam/tn/health/documents/Hearing_Only_Form_9.17.17_DRAFT_MFW_\(2\).pdf](https://www.tn.gov/content/dam/tn/health/documents/Hearing_Only_Form_9.17.17_DRAFT_MFW_(2).pdf) .
6. If the infant did not have a valid hemoglobinopathy (Hgb) screen prior to transfusion and only needs Hgb testing (if all other screens have been submitted), nurseries should submit the repeat screen or include the repeat screen order in the infant’s discharge instructions according to the following procedures:
 - a. For infants <6 months of age at time of collection: Submit a repeat filter paper to the State Laboratory 3 months after the last transfusion.
 - b. For infants >6 months of age at the time of collection, send an EDTA microvette tube to Meharry.

SPECIAL NOTES:

- Infants with screen positive and/or clinical findings may need to have a repeat specimen collected per special instructions by the Newborn Screening Program or clinician.
- Infants with possible Hemoglobin disease or trait that are <37 weeks or <2500 grams should have a microvette tube sent to Meharry Sickle Cell Center at 6-8 weeks of age for disease or trait confirmation.
- Infants that receive TPN, should have a repeat newborn screening collected 24 hours after the TPN is discontinued and before discharge