

Quick Blood Spot Check

Newborn Screening (NBS) Unsatisfactory Specimens

Image Front Side	Image Back Side	All unsatisfactory specimens will require a repeat specimen collection.
		 Satisfactory Specimen: ✓ Circles are filled with a <i>single</i> blood drop applied to <i>one side</i> of the filter paper. ✓ Drop soaks through to fill the circle on the back. ✓ Card is dried <i>horizontally</i> for at least 3 hours. ✓ Filter paper is not exposed to contaminants. ✓ No clots, layering, or damage to filter paper.
		 Quantity Not Sufficient (QNS) or Insufficient (INS) Specimen: Circles do not contain enough blood for initial testing and any needed repeat testing. QNS means fewer than 9 satisfactory punches were obtained. Insufficient means fewer than 15 satisfactory punches were obtained. The NBS Lab needs a minimum of 15 punches to complete initial testing. Tips: Use proper size lancet and allow a large drop of blood to form before touching it to the card.
		 Layered Specimen: More than one drop of blood has been applied to the circle or blood has been applied to both sides of the filter paper. Tips: Do not touch the same circle multiple times with blood. Apply blood to only one side of the filter paper.
		 Serum Separation: Serum can separate from red blood cells due to factors such as excessive squeezing of heel, drying card vertically, contaminants on filter paper or use of capillary tubes for collection. Tips: Warm heel, use proper lancet size, do not use capillary tube for collection, and dry specimen card horizontally for at least 3 hours.
		 Clotted Specimen: Clots can occur when too much blood is applied to the filter paper or when blood is applied multiple times to the same circle. Tips: Use proper lancet size, do not use capillary tube for collection, avoid putting too much blood on the filter paper or applying more than one drop to each circle.
0	 Contaminated Specimen: Occurs when the filter paper and/or blood sample contacts other substances, such as alcohol, hand lotions, powders, formula, or antiseptic solutions. Tip: Do not allow filter paper to contact an ungloved hand or contaminants before, during, or after collection. 	

Wet Specimen: Occurs when the filter paper is not fully dried and is placed into a sealed plastic bag or a liquid is spilled on it.



Tips: Dry specimen card at least 3 hours in a horizontal position and ensure completely dry before packaging.



Damaged card: Filter paper is damaged during the specimen collection process or during transportation to the lab.

Tips: Avoid using capillary tubes for specimen collection and ensure proper packaging for shipment



Super Saturated Specimen: Occurs when excessive blood is collected on the filter paper.

Tips: Allow a large blood drop to form and lightly touch the drop to the filter paper. Allow the drop to soak through and completely fill the area within the circle. Very little blood, if any, blood should soak outside of the circle.

Cannot Identify (CID) Sample: Occurs when the NBS Lab cannot be certain whether the blood specimen received belongs to the baby whose demographics are filled out on the specimen card.

Tip: Ensure demographic portion of NBS card is filled out clearly and correctly. If an error occurs, put a single strikeout line through incorrect information and clearly write correct information next to it. Make a notation in notes field attesting corrections are accurate. Do **NOT** combine portions of two kits for a baby. If multiple errors occur, complete a new screen, and send the face sheet of the original screen for replacement. *

Old Specimen: Sample is received at the MDHHS Newborn Screening laboratory more than 14 days after the collection date.

Tips: Ensure that all NBS cards have the correct Date/Time of Collection recorded for the specimen. Specimens should be sent by courier the same day if collected more than five hours before the scheduled courier pickup time that day. Specimens should be sent the next day the courier is scheduled to pick up if collected less than five hours before the scheduled courier pickup time that day.

Too Old to Test: Sample is collected after the infant is one year old.

Tip: MDHHS NBS Lab cannot perform NBS after age one. Do not collect a repeat for this type of unsatisfactory specimen.

* Did you know that replacement NBS kits are free?

- Recognizing an unsatisfactory specimen and immediately re-collecting on a new card can save critical time, reduce stress on families, and decrease unnecessary cost to hospitals.
- Return the face sheet of the original NBS card (the one you deemed unsatisfactory) and the NBS Card Replacement Form. A replacement card will be sent upon receipt.
- The NBS Card Replacement Form and instructions are located at <u>MDHHS Newborn Screening -</u> <u>Resources for Hospitals and Health Professionals (michigan.gov)</u> in the forms section.

For more detailed tips on how to avoid unsatisfactory specimens or about NBS specimen collection, please visit <u>MDHHS - Newborn Screening - Resources for Hospitals and Health Professionals (michigan.gov)</u> or contact the NBS Nurse Consultant at 517-335-1966.