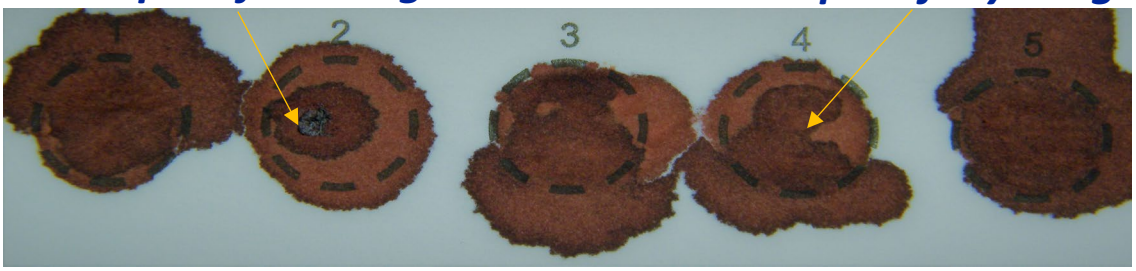
SPOT*focus*

Newborn Screening Quality Improvement Hints

BLOOD WAS CAKED, CLOTTED, OR LAYERED ONTO THE FILTER PAPER

The design of the filter paper allows it to hold a specific amount of blood. Caked, clotted, and layered blood specimens have too much blood. Specimens that have too much blood can cause falsely elevated results; therefore, these specimens will be unsatisfactory for testing.

Example of clotting ***Example of layering***



In 2025, over 2,500 newborn screening specimens were rejected because the blood was caked, clotted, or layered onto the filter paper. All of these specimens required a recollection and caused critical delays to testing.

TIPS TO AVOID A CAKED, CLOTTED, OR LAYERED SPECIMEN

- Warm the newborn's heel around the intended area of the skin puncture site for three to five minutes.
- Place the sterile, retractable disposable heel lancet on the newborn's heel, apply gentle pressure to the lancet, and activate it to puncture the heel. Wipe off first drop of blood.
- Gently squeeze the newborn's heel to allow a LARGE round drop of blood to form.
- Lightly touch the LARGE drop of blood to the center of a pre-printed circle on the filter paper. Do not touch or rub the newborn's heel on the filter paper.
- Apply blood to one side only while viewing from the other side to ensure complete saturation of the entire pre-printed circle.
- If, after blood application, the pre-printed circle is not full and completely saturated, do not apply more blood. Continue to the next pre-printed circle and make sure that you form a LARGE drop of blood.
- Complete one pre-printed circle at a time and fill all circles.
- Examine both sides of the filter paper to ensure that the blood uniformly penetrates and saturates the paper.
- If the blood flow diminishes, repeat the specimen collection procedure using a new lancet.
- To access specimen collection requirements, visit: bit.ly/4hhdyU2.

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