

## Clinical Skills Assessment: Newborn Bloodspot Screening Specimen Collection

**Instructions:** This assessment tool should be used to train staff who are new to newborn bloodspot collection (collectors), including travel, agency or float staff.

Annual re-assessment of skills is recommended. Staff who collect unsatisfactory specimens should be re-assessed more frequently.

This list is comprehensive, but some skills will not apply to some staff members' roles. Mark these performance criteria 'N/A' as needed.

Employee name: \_\_\_\_\_

Evaluated by: \_\_\_\_\_ Assessment date: \_\_\_\_\_

PERFORMANCE CRITERIA:	Outcome
<b>Training resources reviewed prior to specimen collection</b>	
a. Video: Newborn Bloodspot Screening Specimen Collection Training (40 min). ( <a href="https://bit.ly/nbs-provider">https://bit.ly/nbs-provider</a> )	
b. Video: CLSI-Making a Difference Through Newborn Screening (32 min). ( <a href="https://bit.ly/nbs-provider">https://bit.ly/nbs-provider</a> )	
c. Oregon Newborn Bloodspot Screening Practitioner's Manual. ( <a href="https://bit.ly/nbs-provider">https://bit.ly/nbs-provider</a> )	
<b>Specimen collection card</b>	
a. Checks expiration date of specimen collection card.	
b. Uses the correct specimen collection card (Card 1, 2 or 3).	
c. Fills in the demographic information completely, accurately and legibly.	
<b>Blood not submitted: Procedure reviewed</b>	
a. <u>Transfer</u> : Specimen collection card is filled out, 'transfer' box is marked, and all cards for that baby are sent to the state lab. Specimen collection cards are <b>not</b> sent with the baby to the receiving facility.	
b. <u>Baby deceased (after live birth)</u> : Specimen collection card is filled out, 'deceased' box is marked and all cards for that baby are sent to the state lab.	
c. <u>Parent refusal</u> : Specimen collection card is filled out, 'refusal' box is marked. Refusal form on back of filter paper is reviewed with family and signed. First card is sent back to the state lab. The second card can be sent home with family if willing.	

Specimen collection timing		Outcome
a. Specimen is collected using current <a href="https://bit.ly/nbs-provider">specimen collection guidelines</a> , including special considerations. ( <a href="https://bit.ly/nbs-provider">https://bit.ly/nbs-provider</a> )		
b. First specimen is collected as soon as possible after 24 hours but before 48 hours of life.		
c. Second specimen is collected between 10-14 days of age.		
Family education		
a. Explains procedure to parents/guardians and answers any questions.		
b. Informs parents/guardians that it could take more than one heel stick to collect the specimen.		
c. Reviews NBS <a href="https://bit.ly/nbs-parents">parent education brochure</a> with parents/guardians. ( <a href="https://bit.ly/nbs-parents">https://bit.ly/nbs-parents</a> )		
d. Reviews <a href="https://bit.ly/NBSnewvideoforparents">parent education video</a> with parents/guardians (4 min). ( <a href="https://bit.ly/NBSnewvideoforparents">https://bit.ly/NBSnewvideoforparents</a> )		
Patient safety		
a. Verifies the identity of the baby and ensures it matches the name and patient identifiers on the specimen collection card.		
b. Performs correct hand hygiene technique per facility policy prior to specimen collection.		
c. Applies standard precautions per facility policy throughout the procedure.		
Collection procedure		
a. Ensures baby is dressed warmly and/or swaddled in a blanket prior to and during specimen collection.		
b. Ensures that baby is positioned upright and/or foot is lower than the level of the heart prior to and during specimen collection.		
c. Applies heel warmer to foot for length of time indicated by manufacturer instructions.		
d. Uses correct heel stick site - either side of the base of the heel.		
e. Cleanses the site with an alcohol swab and lets area air dry.		

Collection procedure (continued)	Outcome
f. Uses puncture device specific to heel stick collection and correct size based on baby's gestational age at birth or birth weight. For preterm babies (< 37 weeks gestation) or low birth weight (< 2500 grams), do not exceed a puncture depth of 0.85 mm. For all other babies, do not exceed a puncture depth of 2.0 mm.	
g. Holds the foot firmly and positions the puncture device against heel stick site. Follows puncture device orientation instructions from manufacturer. If no instructions, place the device across (perpendicular) to the heel print. The ridges of the heel print will hold the drop of blood in place, so a larger drop can collect.	
h. Applies gentle pressure to heel with device and punctures the site. One puncture per heel stick site.	
i. Wipes away the first drop of blood with clean or sterile gauze.	
j. Applies gentle intermittent pressure around the heel to allow one large drop of blood to form.	
k. Allows <b>one drop of blood</b> to touch or drop onto center of the first circle on the filter paper.	
l. Avoids touching heel to filter paper.	
m. Avoids swiping blood across filter paper.	
n. Repeats procedure from step j. for all five circles on the filter paper, <b>applying only one drop of blood to each circle.</b>	
o. Reviews quality of the bloodspots while baby is still present with the collector to ensure each drop of blood has filled the circle and saturated through the filter paper card.	
p. If circles are not filled completely or saturation through the card is uneven, collector adds 2-3 extra drops of blood outside of the circles on the filter paper. Blood drops can be applied over the pre-printed letters/numbers on the filter paper.	
q. Blood drops are not layered or connected.	
r. If blood flow stops prior to filling all five circles, collector repeats procedure from step d. using a different heel stick site and repeats collection procedure.	
s. When specimen collection is complete, collector stops the bleeding using a clean or sterile gauze pad.	

<b>Collection procedure (continued)</b>		<b>Outcome</b>
t. Provides additional care to heel stick site per facility policy.		
u. Reviews specimen collection card after collection to ensure requested data is complete, accurate and legible.		
<b>Drying the specimen</b>		
a. Specimen dries in a flat (horizontal) position for 3-4 hours until completely dry.		
b. Filter paper does not touch any surface during the drying process.		
c. Filter paper is not exposed to sunlight, heat or fans.		
d. The protective cover is placed over the filter paper <b>after</b> the specimen is completely dry.		
<b>Specimen transport</b>		
a. Specimen collection card is reviewed prior to shipping to ensure demographic information is complete, accurate and legible.		
b. Specimen is placed in courier/mailing envelope.		
c. If sending multiple specimens, a packing list is included.		
d. Specimen is sent to the state lab as soon as possible after specimen is dry, and no later than 24 hours after collection.		
e. Specimen is not batched with others or delayed in transport.		
f. Specimen should arrive to the state lab within 48 hours of collection. All specimens should be sent by express mail, courier or another timely delivery services such as FedEx or UPS.		
<b>Specimen tracking</b>		
a. Specimen information is recorded in facility tracking system, including kit number, infant's name, DOB, date/time specimen left facility and shipping tracking number if applicable.		
b. Specimen results are reviewed and matched to each specimen sent to the state lab.		

Additional training resources are available on the Oregon Newborn Bloodspot Screening website: <https://bit.ly/nbs-provider>.

For questions about specimen collection or further training needs, reach out to Jacqui Umstead. [Jacqui.umstead2@oha.oregon.gov](mailto:Jacqui.umstead2@oha.oregon.gov).