

**HEEL PUNCTURE INFANT**

- |  |   |   |
|--|---|---|
| <input checked="" type="checkbox"/> St. Joseph Medical Center Tacoma, WA | <input checked="" type="checkbox"/> St. Clare Hospital Lakewood, WA     | <input checked="" type="checkbox"/> St. Elizabeth Hospital Enumclaw, WA   |
| <input checked="" type="checkbox"/> St. Francis Hospital Federal Way, WA | <input checked="" type="checkbox"/> St. Anthony Hospital Gig Harbor, WA | <input checked="" type="checkbox"/> ENUM <input checked="" type="checkbox"/> GIGL <input checked="" type="checkbox"/> PSC |

**PURPOSE**

To provide instruction to staff to safely and appropriately collect blood samples from an infant's heel to be used for laboratory testing.

**SPECIMEN REQUIREMENTS/PATIENT PREPARATION**

The tests ordered by the physician determine the specimen type and quantity, as well as if any patient preparation is required. Care should be taken to review the test requirements prior to collection to obtain the optimal specimen.

**EQUIPMENT**

- 70% alcohol prep pad
- Lancet device
- Microtainer tube(s) appropriate for the ordered test
- Warm washcloth, glove filled with warm water, or approved heel warmers specifically for infant heel warming.

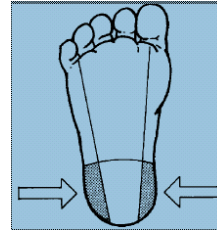
**STEPS**

Hand hygiene must be performed before and after patient contact. Wash hands or use antiseptic gel prior to gloving, and following glove removal.

1. Introduce yourself to the patient and parent or guardian following the AIDET customer interaction protocol and explain that you will be collecting some blood samples for lab testing.
2. Positively identify the patient by actively comparing 2 patient identifiers from the patient armband or requisition against the sample labels.
3. Check the tests ordered against the need for patient preparation, number and type of microtainers, etc.
4. The infant should be brought to the bassinette or infant table. A blue pad may be placed under the infant for the blood draw. A new pad is used for each patient.
5. Place a warm washcloth, a glove filled with warm water, or heel warmer on the infant's foot. Adequate warming of the foot is critical in collecting an adequate sample. Pre-warming the site can improve blood flow by seven fold. Warm the foot for three minutes.
  - **Wash cloth:** Wet two washcloths in very warm water. If the wet cloth can be held comfortably, you will not burn the child. Wrap the wet washcloths around the foot, then enclose the entire foot and cloth with a glove which acts as an insulator. A disposable diaper can also be used as an insulator.
  - **Water-filled glove:** Fill the glove with very warm water and tie a knot at the wrist end much like a water balloon. Do not over fill the glove. Have the patient's parent or guardian hold the water-filled glove to the child's heel.

- **Heel Warmer:** Massage chemical pack as per instructions. **Note:** Heel warmer should be held on the baby's heel for 3 minutes. The warmer will start to cool after the 3 minutes.

6. Select the site for the puncture. Avoid a bruised, swollen, or edematous area. The most medial or lateral portions of the plantar surface of the heel should be used. The posterior curvature of the heel should NOT be used. See picture for acceptable puncture locations.



7. Assemble the needed equipment.
8. Cleanse the area with the alcohol pads, allow to air dry. Providone iodine should not be used as it will falsely elevate phosphorus, uric acid, potassium, and bilirubin.
9. Hold the child's foot firmly to prevent movement while performing the stick. No lancet used for heel stick should penetrate more than 2.0 mm in depth.
10. For disposable retractable point lancets there is a 4 step procedure:
  - Hold the unit with the THUMB and FOREFINGER and place the blade end on the site. Apply enough pressure to "dimple" the skin around the unit.
  - Depress the plunger with your INDEX finger.
  - Remove the device after the blade has retracted from the heel.
11. Gentle massage may be used to produce a rounded drop of blood. Excessive squeezing should be avoided as it can cause the blood to be diluted with tissue fluid and be hemolysed. It may also cause bruising.
12. Wipe away the first drop of blood produced as it is contaminated with tissue fluids that may alter lab results.
13. Fill the appropriate sample tubes by collecting drops of blood in the form in the scoop end of the tube. Avoid scooping the sample from the foot as this can cause platelet clumping and hemolysis. If more than one tube is needed, fill the tubes with additives first.
14. If insufficient specimen was obtained because the blood has stopped flowing, the puncture may be repeated up to 3 total times using a different site and new lancet. Steps 5 through 13 above must be followed.
15. Apply pressure to stop the bleeding. **Remember:** A band-aid is a choking hazard and should never be applied.
16. Dispose of the lancet into an approved sharps container. Discard any accumulated paper trash appropriately.
17. Thank the patient or parent/guardian.
18. Make sure the drawing area is ready for the next patient and that any blood drops have been disinfected according to laboratory policy.

19. Wash hands after removing gloves and prior to drawing the next patient.

**PROCEDURAL NOTES AND REMARKS**

Bilirubin samples should be collected in an amber microtainer tube or if not available, a red/green top microtainer can be used but must be protected from light. Record the baby's time of birth.

**REFERENCES**

CLSI H04-A6 – Procedures and Devices for the Collection of Diagnostic Capillary Blood Specimens; Approved Standard – Sixth Edition, September 2008.

<b>DOCUMENT APPROVAL Purpose of Document / Reason for Change:</b>			
5/24/12 – Header format changes. Clarified details against CLSI doc. Added picture of heel. Added related documents and minor edits.			
<b>Committee Approval Date</b>	5/24/12	<b>Medical Director Approval (Electronic Signature)</b>	5/22/12 <i>Linda D. Burkhardt, M.D.</i>