**PCC.PHLEB.4.0 VENIPUNCTURE-CAPILLARY PUNCTURE**

**PURPOSE**

Capillary (skin) punctures are performed to provide small volume blood samples. The procedure is recommended for infants, small children and adults where venous access is compromised. Skin puncture cannot be used where larger volumes are required such as blood bank procedures, sedimentations rates, blood cultures and coagulation studies.

**OWNERS**

QA and Safety Officer

PCC Supervisors

**EQUIPMENT**

A. Gauze pads (clean 2”x2” or 4”x4”)

B. 70% alcohol prep

C. Puncture device

D. MicroTainers

E. Glass slides (optional)

F. Filter paper for metabolic screen

G. Heel Warmer

H. Bandage

**SELECTING A PUNCTURE SITE**

A. On children over two years old and adults, the fleshy area of the distal portion of the index, middle and ring finger can be used. Avoid fingers that are cold, inflamed, bruised, scarred or swollen from edema. The incision made on the finger should run across the grain of the fingerprint. If the puncture is made in the same direction as the fingerprint, blood will flow down the finger.



B. For neonates and children less than two years of age the most medial or lateral aspects of the plantar surface of the heel should be used. Place the lancet perpendicular to the length of the foot.



**WARMING THE SELECTED PUNCTURE SITE**

A. Warming the intended puncture site will increase blood flow making the puncture easier. The blood warmer should be applied to the site for 3-5 minutes. If a blood warmer is not available a washcloth that has been warmed with water may be applied to the site for 4-7 minutes.

**ORDER OF DRAW**

1. EDTA – Lavender
2. Blood Film
3. Other additives
4. Clot tubes – red top.

**PROCEDURE**

Body substance precautions and safety procedures are to be followed with all patient contact. Refer to MACL safety policies and procedures.

A. Before performing capillary puncture

1. Wash hands per policy stated in SAFE.BIOHAZ.1.0 BBP Exposure Control/Infection Control Plan

a. This includes all process stated in SAFE.BIOHAZ.1.0 of handwashing, including rubbing hands together for at least 20 seconds; or, if using sanitizer, that sanitizer be used at most 5 times before handwashing is performed per policy.

2. Identify the patient. Refer to PCC.SPCOL.1.0 *Identification of Patients and Specimens.*

3. If a fasting specimen is ordered, check last time patient ate.

4. Assemble equipment

5. Wash hands

6. Put on gloves

7. Reassure patient and/or parent

8. Position patient

9. Select the puncture site

10. Warm the site

11. Grasp the finger/heel firmly

12. Clean the site thoroughly with alcohol

13. On children manually dry the site with sterile gauze. Children will not remain still long enough for the alcohol to dry.

B. Perform capillary puncture

1. Hold the puncture device firmly between the fingers

2. Place the puncture device firmly on the puncture site. Refer to site selection section for correct placement site.

3. Push the trigger of the puncture device to puncture the skin. Hold the device momentarily after incision. DO NOT twist or slide the device while in place against the skin. Never double stick.

4. Wipe away the first drop of blood to reduce tissue fluid contamination.

5. Gently squeeze entire finger/foot to allow a drop of blood to form at the puncture site.

6. Hold MicroTainer upright while filling.

7. Allow drops of blood to collect on the tip of the finger.

8. Gently touch the edge of the MicroTainer to the drop. Allow the blood to flow freely into the MicroTainers. DO NOT scrape the MicroTainer against the skin.

9. Maintain blood flow by alternately applying and releasing intermittent pressure to the surrounding area. Avoid excessively squeezing the finger/heel.

10. For anticoagulated specimens gently agitate the MicroTainer frequently.

11. Fill the tube to the correct level.

12. Apply pressure to the site with a gauze pad.

13. Place cap on the MicroTainer and gently invert.

14. Dispose of puncture device in sharps container

15. Apply a bandage to the puncture site. Do not use a bandage on small children that may swallow it. Apply a spot bandage to the puncture site of a newborn following a heelstick.

16. Label and continue to process per procedure.

**PROCEDURE NOTES**

A. Never perform a capillary puncture of

1. Bruised or scarred sites

2. Swollen or previously punctured sites

3. A site that has visible edema

4. An earlobe

5. Finger of a child less than two years old

6. The central area of an infant’s heel

7. Great toe

**REFERENCES**

A. Hoeltke, Lynn B., *The Complete Textbook of Phlebotomy*, Albany, NY, Delmar Publishers, 1994.

B. NCCLS Approved Standard: H3-A4, “Procedures for the Collection of Diagnostic Blood Specimens by Venipuncture,” Fourth Edition, 1997.