

BLOOD COLLECTION TECHNIQUE BY HEELSTICK FOR NEONATES

I. PRINCIPLE

Blood collection technique used in the collection of a blood specimen is critical in order to maintain the integrity of the specimen and to insure quality patient results.

II. SPECIMEN REQUIREMENTS

A. Conditions for Patient Preparation.

The patient should be in a supine position. All patient questions outside the procedure being performed should be referred to the nurse or physician in charge of the patient, if they are not performing this procedure.

B. Type of Specimen

Whole blood is collected into an appropriate specimen tubes or placed directly on the test pad as required by the test requested.

C. Handling Conditions

All specimens collected must be immediately labeled or processed before leaving the patient. Appropriate handling conditions for each test requested should be adhered to as stated in the procedure.

III. REAGENTS AND SUPPLIES

A. Specimen collection tubes (if required) - these will vary depending on the individual requirements of the test requested.

B. Alcohol preps for cleansing the area.

C. Gauze squares

D. Automatic Lancing Device or non automated lancing device.

E. Band-aid

IV. CALIBRATION

No calibration is required for this procedure.

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V. **QUALITY CONTROL**

Identification of the patient must be performed by checking identification band, **DO NOT** draw any specimen without properly identifying the patient. Two patient identifiers are required.

VI. **PROCEDURE**

Wash hands following infection control guidelines upon entering the patient room and between patients.

- A. Identification of the patient must be performed. Check the identification band or if not available verify identity of patient from a nurse, relative, or friend. **DO NOT** draw any specimen without properly identifying the patient.
- B. If a fasting specimen is required, confirm that the fasting order has been followed.
- C. Position the patient properly, for easy, comfortable access to their heel.
- D. Assemble equipment necessary for procedure.
- E. Always don gloves (must be clean and changed between patients) before proceeding to next step.
- F. Choose an area on the plantar surface of the foot anterior and medial to the potential heel pad. Cleanse the chosen area of the heel with an alcohol prep. Allow alcohol to air dry before proceeding.
- G. Using a sterile lancet or automatic lancing device, puncture the skin. If using a lancet, grasp the patient's foot firmly and make a quick deep stab. If using an automatic device, follow manufacturer instructions.
- H. The first drop of blood should be wiped away with a gauze square to avoid tissue juices which may result in inaccurate results.
- I. Collect the blood into the appropriate microtainer tubes, apply a drop of blood to the test pad(s) of the strip, or apply the appropriate amount of blood to a cartridge. Tubes containing anticoagulant should be capped and then gently inverted and thumped with the index finger to mix properly.
- J. Label each tube (if utilized) with the patient's name, medical record number, account number, date, time, specimen control number and collector's initials. Follow any special handling procedures, e.g., chilling.
- K. Perform Point-of-Care testing procedure adhering to procedure instructions.
- L. Check the condition of the patient that bleeding is under control.
- M. Bandage the patient's heel. Usually a band-aid over a cotton ball or rolled up sterile gauze square is adequate.
- N. Remove all equipment used.

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- O. Dispose of contaminated materials such as lancets, cotton, gauze, etc., in appropriate containers.

VII. CALCULATIONS

Not Applicable.

VIII. REPORTING RESULTS

Not Applicable.

IX. PROCEDURE NOTES

All additive-containing tubes must undergo immediate inversion at least 10 times to insure proper mixing. Never shake the tubes violently. This may result in inaccurate results due to hemolysis.

Patients should not be punctured in the heel pad. This precaution is taken to avoid the rare development of a scar, which might be painful if it were on a weight-bearing surface.

X. LIMITATIONS OF PROCEDURE

- A. Additive - containing tubes containing clots must be discarded and recollected.
- B. Tubes improperly labeled must be discarded and recollected.
- C. Tubes not adhering to special handling procedures must be discarded and recollected.
- D. Hemolyzed specimens obtained for test procedures requiring non-hemolyzed specimens must be discarded and recollected.
- E. Specimens exceeding time requirements for test procedure must be discarded and recollected.
- F. Excessive squeezing of the patient's heel should be avoided to eliminate diluting specimen sample with tissue juices resulting in inaccurate results.
- G. Warming of the heel and gentle massage may increase blood flow to the area.

XI. REFERENCES

- 1. Henry, M.D., John Bernard Clinical Diagnosis and Management by Laboratory Methods, 20th edition.
- 2. Microtainer Brand Tubes, Becton Dickinson, Product information.
- 3. Title: H04-A5, Procedures and Devices for the Collection of Diagnostic Capillary Blood Specimens. Publication Date: 06/20/2004: Fifth Edition

XII. DISTRIBUTION

This procedure is available to laboratory sections/personnel through the Department of Pathology Policy and Information manual. with availability to facility personnel via the hospital web site, www.sh.lsuhs.edu.