

**Employee Health Blood Collection Policy**

**Clinic**

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| Effective Date: November 2021 | Department: Laboratory |
| Date of Review: November 2023 | Created/Maintained by: Laboratory Management |

1. **Purpose:**

To provide guidance in safety and proper technique when obtaining blood specimens by venipuncture and capillary collection methods. Quality patient care is highly dependent on proper patient identification, adequate phlebotomy technique, and appropriate specimen processing while utilizing universal precautions when performing phlebotomy procedures. Each step of the phlebotomy process affects the quality of the specimen, thus provide importance in preventing laboratory error and patient injury.

1. **Policy:**

It is the policy of the Chickasaw Nation Employee Health Clinic to adhere proper guidelines when performing a phlebotomy procedure. These guidelines begin with properly identifying the patient with at least two patient identifiers prior to specimen collection. All specimens submitted for testing must be properly labeled with two patient identifiers, date and time of collection and the initials of the person collecting the specimen. All specimens must meet specimen collection, labeling, transportation and processing guidelines as set by the performing laboratory.

1. **Definitions:**
   1. Universal Precautions- Standard set of guidelines to prevent the transmission of blood borne pathogens from exposure to blood and other potentially infectious materials.
   2. Hand Hygiene- cleaning hands by using either handwashing (soap and water) antiseptic hand wash, antiseptic hand rub (i.e. alcohol-based hand sanitizer including foam or gel) or surgical hand antisepsis. Hand hygiene should be performed prior to performing any procedure to reduce the risk of transmissible diseases.
   3. Appropriate gloves- clean gloves must fit properly; the ends of the glove should not protrude beyond the ends of the fingers. Do not use gloves that are torn and do not tear off fingertips. Change gloves if they become contaminated. Do not wash or attempt to decontaminate gloves for reuse. Use only powder-free latex or non-latex gloves.
2. **Materials**:
   1. Disposable, single use 21-23 gauge needle
   2. Vacutainer needle holder (hub) or syringe
   3. Vacutainer Blood tubes
   4. Tourniquet
   5. Alcohol prep
   6. 2x2 gauze
   7. Bandage/Band Aid, tape or cohesive wrap
   8. Sharps container
   9. Clean disposable gloves
   10. Single use lancet (capillary collection device)
   11. Microtainer (capillary collection)
3. **Procedure:** 
   1. Patient Identification: Positive patient identification must be verified by asking patient to state his/her name and date of birth.
   2. Patient preparation: Verify that the patient status is appropriate for the test order; i.e. fasting as required by specific tests.
   3. Vacutainer Tubes as required:
      * 1. Check expiration dates on tubes and do not use beyond the expiration date.
        2. Store tubes according to manufacturer’s recommendations.
        3. Follow the recommended order of draw:
           1. Blood Culture tubes/bottles
           2. Blue Stopper/Sodium (Na)Citrate/Coagulation
           3. Red Stopper/ clot activator
           4. Yellow or Marble stopper/Serum separator gel tube
           5. Green stopper/ Lithium or Sodium heparin
           6. Purple stopper-EDTA-K3 tube
           7. Gray stopper/ Oxalate/fluoride
4. **Venous Blood Collection:** 
   1. Perform hand hygiene prior to putting on proper gloves.
   2. Identify self and properly identify patient prior to performing procedure.
   3. Review test orders and ask if patient has prepared accordingly.
   4. Reassure the patient and explain what you will do.
   5. Extend the patient’s arm and inspect the antecubital fossa to select venipuncture site. Locate vein of good size if possible, this will aide in the selection of needle gauge.
   6. Assemble the equipment and supplies required for the collection.
   7. Place tourniquet around the arm above the elbow and ask the patient to “pump” the fist to help aide in visualizing the venipuncture site and then relax the hand.
      * 1. Cleanse the site with alcohol prep. If arm remains visibly soiled perform cleansing with a new prep. Allow alcohol to dry.
        2. Anchor the vein by drawing skin taught over the vein.
        3. Insert needle, bevel up, to puncture skin and enter vein.
        4. Insert vacutainer tubes into needle hub and puncture rubber stopper to activate vacuum to allow blood entry into the tube. Be sure to adhere to the order of draw as tubes are collected. Be careful not to move needle as tubes are changed. Disconnect the last tube from the hub prior to removing needle. If using a syringe, pull appropriate amount of blood into the device with gentle, consistent pressure to avoid hemolysis.
        5. Release the tourniquet. Withdraw the needle from the vein and place a 2x2 gauze over the puncture site and have patient to apply pressure to the site. If using a syringe, fill the vacutainer tubes in the same order of draw. Discard needle and appropriate sharps container.
        6. Label tubes with 2 patient identifiers, date and time of collection and initials of the person collecting the specimen.
        7. Gently invert tubes 8-10 times to ensure proper mixture of blood and anticoagulant.
        8. The puncture site for bleeding and apply bandage.
        9. Remove gloves and wash hands or clean with disinfectant gel or foam.
5. **Capillary Blood Collection:**
   1. Capillary blood is usually taken from the heel of infants less than six months of age and lateral aspect of the finger in adults and children. Heels are warmed prior to collection with heel warmers to facilitate blood flow.
      * 1. Assembles supplies and equipment.
        2. Gloves
        3. Alcohol prep
        4. 2x2 gauze
        5. Single use lancet device
        6. Bandage
        7. Microtainer
           1. Perform hand hygiene, apply gloves, clean the area with alcohol, allow drying or wiping dry with sterile gauze.
           2. Using a proper lancet for the heel or finger, puncture the skin so that there is a free flow of blood without squeezing. Squeezing or massaging the puncture site will interfere with most laboratory testing.
           3. Wipe away the first drop of blood.
           4. Secure the required amount of blood into Microtainers and be sure to mix the anticoagulated blood specimens well.
           5. Place a dry 2x2 gauze pad on puncture site until blood flow has stopped then place a band-aid over the puncture site.
           6. Dispose of lancet in approved sharps container marked BIOHAZARD.
           7. Discard gloves and perform hand hygiene
6. **Blood Volume:**
   1. Limit the collection of blood specimens to the minimum amount necessary for testing requirements.
   2. Extra tubes may be draw on patients who are very difficult to draw if additional testing is probable; however, exercise caution that the blood volume be kept to a minimum.
   3. Use Microtainer tubes for difficult blood draws, infants and children.
7. **Specimen transport:**

In general, blood specimens should be transported to the laboratory as soon as possible. Refer to the specimen requirements for special handling needs. All blood specimens must be transported to the laboratory in BIOHAZARD transport bags. Paper requisition shall be placed in the outer compartment, separate from blood tubes.

1. **Needle Safety Precautions:**
   1. The following practices are prohibited:
      * 1. Recapping needles
        2. Purposeful bending or breaking of needles
        3. Removing needles from disposable syringes or other manual manipulations.
   2. The following is allowed:
      * 1. Sharps containers with needle removing devices
        2. Self-sheathing needle devices such as the Eclipse system.
   3. Needles should be immediately disposed of after use
   4. Do not leave needles or lancets on or near the patient chair. Be sure all equipment is accounted for and disposed of properly.
   5. Employees should be aware that needle stick injuries often occur when employees are hurried, fatigued, have insufficient light or uncooperative patients.
2. **Other Safety Precautions:** 
   1. Hand Hygiene shall be performed prior to performing a procedure and thereafter to reduce the risk of transmissible disease.
   2. Ask for assistance with uncooperative patients.
   3. Procedures to follow in the event of an adverse reaction to the phlebotomy.
      * 1. Remain calm and call for assistance
        2. If the patient has been injured, render First Aid
        3. If the patient has a history of fainting, lay them on a treatment table prior to performing the procedure.
        4. If the patient has fainted, make sure they do not fall and apply a cold towel or ice pack to the back of the head or neck.
        5. If the patient has seizures, make sure they do not injure themselves.
3. **References:**

Blood collection log Pediatric and Newborn Patients(courtesy of Herman Hospital clinical laboratories, Houston TX)

Becan-McBride K, Garza D. Phelbotomy Handbook 2nd ed. Norwalk, Conn: Appleton & Lange; 1989:241

WHO guidelines on drawing blood: best practices in phlebotomy. ISBN 9789241599221