

Blood Culture Collection Procedure

Supplies Needed:

- Blood Culture Bottles
 - Adults:
 - 1 aerobic bottle
 - 1 anaerobic bottle
 - Children and Low Volume Adults
 - 1 pediatric bottle
- Gloves
- Cleansing Supplies
 - ChloroPrep® **or** iodine, alcohol pads, and gauze
- Drawing Equipment
 - 20-mL syringe, needle, and transfer device (when available) **or**
 - Butterfly set, luer adapter, and transfer device (when available)
- Alcohol Prep Pads (for cleaning bottle tops)
- Tourniquet
- Patient Labels (1 per bottle)
- Laboratory Test Request Form

Procedure:

1. Wash hands.
 2. Identify patient to be drawn using the patient identification procedure.
 3. Observe appropriate infection control precautions for each patient.
 4. Tie tourniquet around patient's extremity and locate a vein. Then untie tourniquet.
 5. Prepare draw site using 1 of the following methods:
 - ChloroPrep®* - Open the package of ChloroPrep®. Pinch wings on applicator to break ampule and release antiseptic. Do not touch sponge. Wet sponge by repeatedly pressing and releasing sponge against treatment area until liquid is visible on skin. Use repeated back and forth strokes of the applicator for approximately 30 seconds. Completely wet treatment area with antiseptic. Allow area to dry for approximately 30 seconds. **Do not blot or wipe away.**
 - Iodine* - Cleanse venipuncture site with an alcohol prep pad. Beginning in center of venipuncture area, swab skin in an outward spiral pattern using iodine swab. Using a new iodine swab, repeat procedure. Let iodine remain on skin for 1 minute. Cleanse iodine from patient's skin using an alcohol prep pad, then dry venipuncture area using a sterile gauze pad.
- *While skin is being prepared with iodine or drying from the ChloroPrep®, remove flip-caps on the blood culture bottles and apply an alcohol prep pad to the rubber septum of each bottle to clean it. **Do not apply iodine to bottle tops.**
6. Retie tourniquet and relocate vein without contaminating draw site. If you palpate over the venipuncture area, you must repeat the cleaning procedure.
 7. Perform venipuncture using a needle and syringe or butterfly set.
 8. Draw required amount of blood, withdraw needle from vein, and place pressure on venipuncture site using a sterile gauze pad.
 9. Inject blood into culture bottles as described in "Blood Volumes for Culture" table. **Do not change the needle on the syringe prior to inoculating bottles. Do not inject air into bottles.** Discard drawing supplies into sharps container.

Blood Volumes for Culture	
Blood Volume Drawn	Blood Volume in Culture Bottle
16 mL to 20 mL	8 mL to 10 mL in aerobic (green-top) and 8 mL to 10 mL in anaerobic (orange-top)
10 mL to 16 mL	8 mL to 10 mL in aerobic (green-top) and remainder in anaerobic (orange-top)
4 mL to 10 mL	Entire specimen in aerobic (green-top)
<4 mL	Entire specimen in pediatric (yellow-top)

10. Label each bottle with an acceptable patient label being careful not to cover the bar code on bottle. Write on each label the set number, date and time of draw, site of venipuncture, and initials or tech code of the phlebotomist.
11. Wash off any remaining iodine from patient's skin using an alcohol pad and a sterile gauze pad. Apply a bandage to the venipuncture site. Remove and discard gloves. Wash hands.

12. Blood culture bottles should be held at ambient temperature until received in the laboratory.
13. Send bottles directly to the Microbiology department during the first and second shifts. If the pneumatic tube system is used, place each bottle in a separate plastic bag. During the third shift, send bottles to the main laboratory accession area where personnel will place them in the blood culture instrument.

- Note:**
1. If multiple laboratory tests are ordered, prepare patient's skin and draw the blood cultures first, followed by the other tubes.
 2. For adult patients who are difficult to draw and from whom <5 mL of blood is available for culture, a pediatric bottle may be inoculated. A 16-mL to 20-mL draw is optimal for adults, and a pediatric bottle is suboptimal but acceptable.
 3. If the patient is allergic to iodine, alcohol prep pads may be substituted for iodine, but a total of 2 minutes of contact with patient's skin is required instead of 1 minute.
 4. ChlorPrep® should not be used on patients with known allergies to chlorhexidine gluconate or isopropyl alcohol, on open skin wounds, or as a general skin cleanser.
 5. Blood for culture should not normally be drawn from an indwelling catheter unless the catheter is suspected as the source of a catheter-related bloodstream infection. If ordered, the catheter blood cultures should be clearly labeled as such to differentiate.
 6. Blood cultures drawn from patients with intravenous (IV) lines should be drawn from below the IV or from another extremity to avoid diluting the specimen with IV fluid.