## Instructions  Peripheral Blood Culture Draw

### Criteria:
- ✓ Use in conjunction with blood culture methods (general) procedure.
- ✓ Provider order for blood culture collection.

### Adults:
- ✓ Collect 2 sets of cultures from different sites.
- ✓ Collect at least one set of cultures from a peripheral site.

### Pediatrics:
- ✓ Draw 1.5 mL minimum for culture when collecting aerobic only (standard). If both aerobic and anaerobic needed, instill minimum of 1 mL in each bottle when collecting.  **NOTE:** Amount of blood depends on weight of patient (see weight based minimums below in step #7).
- ✓ Anaerobic sample should be sent only in the following circumstances: Outpatients, patients with immunodeficiency, malignancy or after bone or human stem cell transplant, patients with gastrointestinal disorder, or at physician’s request due to concern for anaerobes. Sending only an aerobic specimen is sufficient for all other patient populations.

### Supplies:
- ✓ Peripheral blood collection kit containing:
  - 1 set of blood culture bottles (aerobic and anaerobic), or single aerobic bottle for pediatrics only
  - Safety-Lok butterfly needle
  - Angel Wing Safety System Adapter
  - Alcohol prep pads
  - 2 x 2 gauze sponge
  - ChloraPrep Single Swabstick Applicator (2% CHG and 70% isopropyl alcohol)
  - Tourniquet
- ✓ Other supplies: Gloves, patient labels and requisition, 20 mL syringe (adults), 3-10 mL (pediatrics), PVP Iodine if Chlorhexidine contraindicated.

1. Place tourniquet, find a suitable venipuncture site, and then release tourniquet.

2. **For patients with NO contraindication for use of chlorhexidine products:** Cleanse the venipuncture site with ChloraPrep Single Swabstick using a back and forth motion for 30 seconds. Allow to air dry. **NOTE:** If skin is soiled, clean with 70% isopropyl alcohol before using ChloraPrep.

   **For patients with a contraindication to Chlorhexidine products** DO NOT USE CHLORAPREP. Follow this procedure: Clean skin of venipuncture site with 60-second friction scrub of 70% isopropyl alcohol to a 5 cm circular area. Apply 10% PVP Iodine to venipuncture site skin in a circular motion to a 5 cm area starting in the center. Allow to air dry. Following the venipuncture, remove residual iodine from patient’s skin with 70% isopropyl alcohol.

3. Remove plastic cap of each bottle and scrub top of each bottle with 70% alcohol prep pad.


5. Re-apply tourniquet. Do not re-palpate puncture site once cleansed.

7. Collection:
   a. For adults, perform venipuncture and collect 20 mL of blood (10 mL for each bottle). If less than 20 mL is obtained, divide volume in half for each culture bottle.
   b. For Pediatrics, perform venipuncture and collect blood sample amount according to weight:
      - 1 – 5 kg = 1 mL for each bottle
      - 5 – 15 kg = 1.5 mL for each bottle
      - 15 – 40 kg = 3 mL for each bottle
      - >40 kg = 5 mL for each bottle

8. Release tourniquet; remove the needle from the patient's arm and activate Safety-Lock device.

9. Disassemble the syringe from the needle, attach syringe to the Angel Wing Safety System Adapter, and place needle into nearest sharps container.

10. Holding the syringe plunger for control of draw, press and hold adapter down over the top of the aerobic bottle and fill with half of the blood obtained (see step #7 for pediatric minimums). **Do not add more than 10 mL into each bottle.** Remove adapter and syringe from aerobic bottle and fill anaerobic bottle with remaining blood. **Do not aspirate air into the anaerobic bottle.** Gently invert bottles to mix contents.

11. Label each bottle with patient's name and medical record number. Do not cover bar code with label.

12. Indicate on requisition that blood was drawn from peripheral site. Place bottles & requisition in bag (1 set per bag).

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Procedure for Differential Time to Positivity (DTTP) Culture Method

**Indication:** Suspected Central Line Associated Blood Stream Infection (to rule out CLABSI)

**PROCEDURE for obtaining blood culture samples:**

1. Adults: Clarify which CVC(s) to sample from when more than one present. Pediatrics: Sample all CVCs and all lumens.
2. Peripheral vein and CVC line samples must be obtained within 15 minutes of each other.
3. MINIMUM blood volume for each bottle for Adults = 5 mLs.
4. The volumes of blood obtained from the peripheral vein & from the CVC must match to ensure accuracy. (e.g. if only 12 mLs obtained from peripheral stick, obtain only 12 mLs from CVC)
5. For Pediatrics, implement procedural support when indicated; refer to Pediatric Phlebotomy Procedure. Apply topical anesthetic to venipuncture site(s) when indicated.
6. **Draw peripheral blood sample first** since the amount of blood obtained will determine how much is obtained from the CVC.
   a. Prepare Blood Culture Bottles & print Apex Microbiology Lab Requisition for Blood culture, Peripheral (DTTP)
      i. Label each bottle with patient label (do not cover barcode on bottle)
      ii. Write, “PERIPHERAL” on the labels.
      iii. Remove plastic cap and clean top of each bottle with 70% alcohol swab. Allow to air dry.
   b. **For patients with NO contraindication for use of chlorhexidine products:** Cleanse the venipuncture site with ChloraPrep Single Swabstick using a back and forth motion for **30 seconds**. Allow to air dry. **NOTE:** If skin is soiled, clean with 70% isopropyl alcohol before using ChloraPrep.
   c. **For patients with a contraindication for use of Chlorhexidine products,** DO NOT USE CHLORAPREP. Follow this procedure: Clean skin of venipuncture site with **60-second** friction scrub of 70% isopropyl alcohol to a 5 cm circular area. Apply 10% PVP Iodine to venipuncture site skin in a circular motion to a 5 cm area starting in the center. Allow to air dry. Following the venipuncture, remove residual iodine from patient’s skin with 70% isopropyl alcohol.
   d. Install into AEROBIC bottle first, then into ANAEROBIC bottle. **Do not aspirate air into the anaerobic bottle.** Gently invert bottles to mix contents.
7. **Draw the CVC blood sample second:**
   a. Do not draw from a lumen that has had an antibiotic/antimicrobial agent administered through it during previous hour. Avoid drawing from lumens with vasoactive med infusions for patient safety.
   b. Prepare Blood Culture Bottles & print Apex Microbiology Lab Requisition for Blood culture, Central (DTTP)
      i. Label each bottle with patient label (do not cover barcode on bottle)
      ii. Write, “LINE” on the labels.
      iii. Remove plastic cap and clean top of each bottle with 70% alcohol swab. Allow to air dry.
      iv. Write the TYPE and SITE of the CVC (e.g. R IJ, L Fem) on the Micro Lab Requisition.
   c. Cleanse distal lumen (adults) tubing/cap junction with 70% isopropyl alcohol (apply friction for a count of ten). May use other lumen if distal lumen is non-functioning. Pediatrics: Collect sample from all lumens.
   d. Disconnect tubing/cap and attach syringe directly to lumen port.
   e. DO NOT aspirate a discard volume.
   f. Draw the matching volume obtained for the peripheral culture and divide volume in half for each culture bottle, unless collecting only aerobic sample.
   g. Install into AEROBIC bottle first, then into ANAEROBIC bottle. **Do not aspirate air into the anaerobic bottle.** Gently invert bottles to mix contents.
   h. If more than one CVC is being sampled, label with the site, e.g. “Line-Right IJ” & “Line-Right Fem”
8. Each set of culture bottles (aerobic & anaerobic) should be labeled and submitted with a requisition specifying “Peripheral” and “Line” (If patient has more than one CVC, specify insertion site “CVC line-R IJ”). Send both sets with 2 requisitions (peripheral & CVC) in ONE specimen bag to the lab.