

COLLECTION AND INOCULATION OF BLOOD SPECIMENS FOR ROUTINE CULTURE (BACTERIAL, T.B. OR FUNGUS)

Policy

Whenever possible, a **peripheral sample is preferred** over a sample obtained from a line, unless a line infection is suspected. When drawing multiple blood samples from a line, always draw the blood culture first. Do not discard any blood from the line. Use this initial blood in the line, as this may be the best source if an organism is present.

Equipment

Lab requisitions
Name labels
Safety Lok Blood Collection Set/Saf-T E-Z Set
Angel Wing
Blood Culture Bottles*
Skin prep kit (*ChloraPrep One-Step Frepp™*)
Tourniquet
Gauze and paper tape
Unsterile examination gloves

**NOTE: Mycobacterial cultures and Quantitative Blood Cultures require different containers*

Recommended Testing

1. Adults: suspected bacteremia – draw two sets of blood culture bottles (*aerobic and anaerobic*) from two separate venipuncture sites. Maximum of four cultures. Inoculate the aerobic bottle first as there is about 0.5 cc of air in the line of the collection set; sometimes it is difficult to obtain 8-10 cc per bottle. Short samples should be inoculated into the aerobic bottle. The small lines on the edge of the label indicate approximately 5 cc. **It is important not to underfill or overfill the bottles as this can adversely affect the results.**
2. Pediatrics/Neonatal Patient: one aerobic (*yellow or green top*) bottle as ordered by the physician. Recommended volume: 1 to 2 cc. of blood per bottle.
3. Blood Culture for TB: two heparin (*green top*) or two SPS (*yellow top*) Vacutainers. No more than once per 24 hour period.
4. Quantitative Blood Cultures to R/O Line Infection: see separate “Quantitative Blood Culture” procedure in Department of Nursing “Policy/Procedure/Standards Manual”.
1. Blood Culture for Fungus: One aerobic (*blue top*) blood culture bottle.

Method/Procedure

1. Confirm identity of patient making sure that the requisition and labels match the name bracelet.
2. Explain the procedure to patient.
3. Select site for the venipuncture.
4. Remove caps from bottle(s) and wipe bottle top(s) with 70% alcohol prep pad.
5. Skin Preparation and Specimen Collection/Inoculation:
 - a. ChloroPrep One-Step Frepp™
 1. Locate the vein to be used.
 2. Remove Frepp™ from package. Hold the applicator with ChloroPrep One-Step Frepp™ sponge facing downwards and gently squeeze wings, releasing solution for a controlled flow.
 3. Place sponge on selected venipuncture site and depress once or twice to saturate sponge.
 4. Use a back and forth friction scrub for at least 30 seconds.
 5. Allow area prepared to dry for approximately 30 seconds.
 6. Proceed with collection of blood.
 - b. Do not wipe off – if you do, you have then contaminated the site.
6. Maintain a “hands-off” approach during the prep procedure. If it is necessary to touch the cleansed site, prep the glove finger in the same manner with a fresh prep pad and only palpate above and below needle insertion site.
7. a. **Peripheral Draw**
 1. Using the butterfly Safety E-Z Collection Set and a “male” Angel Wing perform the venipuncture. Blood should “flash” back into the tubing.
 2. Use the aerobic bottle first and insert blood culture bottles onto adapter. Collect 10 cc of blood into each bottle.

Note: Collect blood in the aerobic bottle first as there is about 0.5 cc of air in the line of the butterfly, and in case less than 10 cc is obtained. If less than 10 cc is collected on an adult patient, it should be noted on the requisition as this may produce a false negative test result.

7. b. **Line Draw**

When drawing from a line, there are two methods:

1. Directly insert “male” angel wing to the clave connector, **OR**
2. Apply syringe to the clave, draw back specimen and then remove syringe and apply “female” angel wing to the syringe.

8. Put blood into appropriate bottles.
9. Use an alcohol prep to remove any blood from the gray stopper of the blood culture bottles after procedure is complete.
10. Label the bottles with patient name, patient number, time, date, and location of site of specimen, such as "right arm" or "left arm." For line draws, always indicate which line and/or port. Do not place label over the bar code on the blood culture bottles.

Note: Apply patient label to bottles at bedside after the culture is obtained from the identified patient.

11. If other blood is required, draw the additional tubes after the blood cultures are obtained.

TYPE OF CULTURE	CONTAINER	AMOUNT OF BLOOD	ROUTE
Aerobic	Blue Bottle	10 cc Blood	Peripheral Or Line
Anaerobic	Fuchsia Bottle	10 cc Blood	Peripheral Or Line
Fungus	Blue Bottle	10 cc Blood	Peripheral Or Line
TB or AFB or Mycobacterium	2 green-top Vacutainer Tubes (Heparin)	7-10 cc Blood	Peripheral Or Line
Pediatric Blood Culture	Yellow Fan Bottle	1-2 cc Blood	Peripheral Or Line

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