



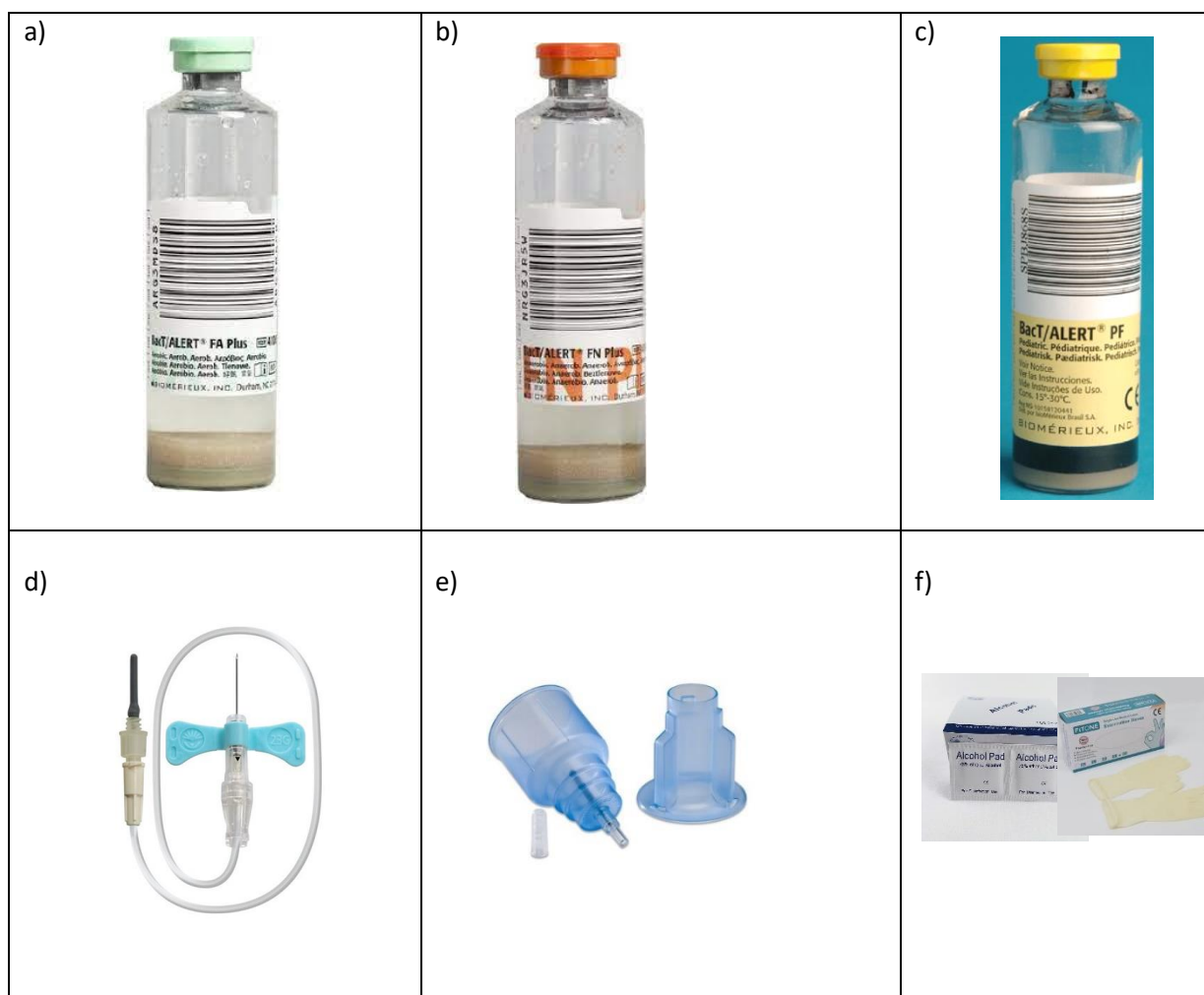
BLOOD COLLECTION FOR BLOOD CULTURE

1. Introduction

A blood culture is a laboratory test in which two or more blood samples drawn from separate venipuncture sites, typically from different veins taken from the patient's arms, is inoculated into bottles containing culture media to determine whether infection-causing microorganisms (bacteria or fungi) are present in the patient's bloodstream.

2. Materials Required

- BacT/ALERT FA plus blood culture bottle for adult
- BacT/ALERT FN plus blood culture bottle for adult (for culture of anaerobic microorganism)
- BacT/ALERT PF plus blood culture bottle for children under 10 years
- Winged blood collection set
- Collection adapter cap
- Alcohol swab and Clean Gloves





3. *Sample Collection Procedure*

1. The first step is to identify the patient. Ask the patient to state his/her name & birth date. Check these against with the requisition form.
2. Wash hands and put on clean gloves



3. The larger median cubital and cephalic veins are used most frequently, but the basilic vein on the dorsum of the arm or dorsal hand veins are also acceptable. Avoid drawing blood from a venous or arterial catheter, since these devices are often associated with higher contamination rates.
4. Palpate and trace the path of veins with the index finger.



5. Select a suitable site for venipuncture, by placing the tourniquet 1-2 inches above the selected puncture site on the patient. Do not put the tourniquet on too tightly or leave it on the patient longer than 1 minute.

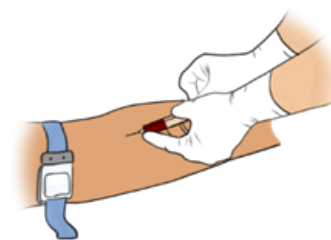


6. When a vein is selected, cleanse the area in a circular motion about 2 inches in diameter, starting from the inside and moving away from the puncture site. Allow the area to air dry. After the area is cleansed, it should not be touched or palpated again. If you find it necessary to reevaluate the site by palpation, the area needs to be re-cleansed before the venipuncture is performed.



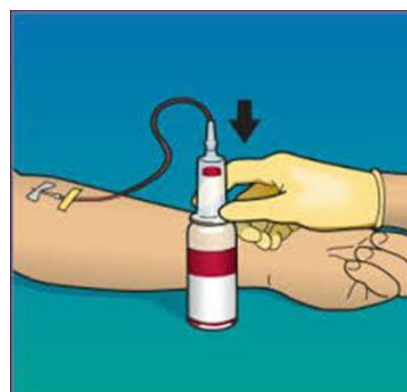


7. Ask the patient to make a fist. Grasp the patient's arm firmly using your thumb to draw the skin taut and anchor the vein. Swiftly insert the needle through the skin into the lumen of the vein. The needle should form a 15–30-degree angle with the arm surface.



8. Place the adapter cap over the aerobic bottle and press straight down to pierce the septum. Hold the bottle upright, below the level of the draw site, and use the graduation lines to accurately gauge sample volume. Add 10 ml of blood per adult bottle and up to 4 ml per pediatric bottle.

9. Once the aerobic bottle has been inoculated, remove the adapter cap, and repeat the procedure for the anaerobic bottle. If using a winged blood collection set, then the aerobic bottle should be filled first to prevent transfer of air in the device into the anaerobic bottle. If using a needle and syringe, inoculate the anaerobic bottle first to avoid entry of air.



10. When the required amount of blood is collected, release the tourniquet, request the patient to open fist and remove the needle from the patient's arm using a swift backward motion.

11. Place gauze immediately on the puncture site. Apply and hold adequate pressure for 3 minutes to avoid formation of a hematoma.



12. Place the patient's information barcode in the space provided on the bottle label and do not cover the bottle barcodes. Inoculated bottles should be transported to the laboratory for testing as quickly as possible, preferably within 2 hours. If delays are expected, blood culture bottles should be stored temporarily at room temperature before sending to the laboratory.



12. Dispose of all sharp materials into sharp container and contaminated materials / supplies in designated containers.

13. Remove gloves and wash hands.





References

- Basic Laboratory Procedures in Clinical Bacteriology, (2003), J. Vandepitte et.al., WHO Geneva, 2nd Edition.
- <https://www.healthline.com/health/blood-culture>
- <https://labtestsonline.org/tests/blood-culture>