

Blood Cultures From Central Line Catheter

PURPOSE

To draw blood from a central line catheter to test for the presence of microbes.

POLICY

1. With a written physician's order, this procedure may be completed by an RN who is competent in blood draws from a central line catheter.
2. This procedure shall be done using aseptic technique.
3. RN shall wear protective gloves for this procedure and consideration shall be given to wearing goggles.
4. A new needleless connector shall be placed on the catheter upon completion of this procedure.
5. Blood cultures should be collected at the earliest sign of suspected septicemia.
6. Two culture bottles (1 aerobic and 1 anaerobic) shall be filled for each blood culture. Check with the lab regarding "venting" of the aerobic bottle.
7. Check with the physician regarding time span if more than one set of blood cultures is ordered.

EQUIPMENT

Liquid (regular or antimicrobial) soap and sanitizing gel

1 pair of gloves

1-2 10ml sterile syringes

1 set of blood culture bottles (aerobic and anaerobic)

2 sterile 20-gauge needles

2-3 10ml pre-filled 0.9% sodium chloride (USP) syringes

Occlusion clamp (if needed)

Sterile needleless connector

Alcohol pads or other disinfecting product

1-inch tape or Band-Aid®

Sharps container

OPTIONAL: Goggles

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PROCEDURE

1. Obtain physician order for lab draw. Explain procedure to patient.
2. Wash hands thoroughly with soap and water and dry with clean paper towel.
3. Arrange supplies on a clean surface.
4. Cleanse the diaphragm tops of the culture bottles with **alcohol only** (povidone-iodine may interfere with the automatic processing of some culture collection systems). **Let dry.**
5. Put on gloves and goggles (if appropriate).
6. Clamp the catheter (unless it is a Groshong®)
7. Cleanse the needleless connector/catheter junction with alcohol swabs, applying friction for one full minute (or use other disinfectant per manufacturer's instructions). Remove the connector.
8. Luer lock an empty sterile 10ml syringe onto the catheter hub.
9. Release the clamp and aspirate 10-20ml of blood from an adult or 2-6ml from a child.
10. Clamp the catheter and remove the syringe.
11. Attach the syringe with the 10ml (or smaller amount for child) of 0.9% sodium chloride (USP). Release the clamp and flush the catheter.
12. Clamp the catheter and remove the syringe. Blood on the threads or hub may provide a medium for bacterial growth and should be removed with alcohol or other appropriate disinfectant.
13. Attach new needleless connector to the catheter; unclamp catheter.
14. Flush with additional 0.9% sodium chloride (USP) or heparin as ordered.
15. Attach a new sterile needle to the syringe used to draw the blood. **First inject the anaerobic bottle with 5-10ml of blood to prevent introduction of air into the bottle. Inject the remaining blood into the aerobic bottle.**
16. Label the culture bottles and transport to the lab per specific laboratory requirements and CarePro Infection/Exposure Prevention protocol.

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17. Document the procedure in the patient's medical record. For pediatric patients the amount of blood obtained should be documented in the medical record. See the Pediatric Protocol for information on volume limitations.

RESPONSIBILITY

The Clinical Specialist has the responsibility for approval of, compliance with, and revisions to this policy.

MODIFICATION/REVISION

This policy is subject to modification or revision in part or its entirety to reflect changes in conditions subsequent to the effective date of this policy.

REFERENCES

1. Infusion Nursing Standards of Practice – Revised 2016; Journal of Infusion Nursing, Supplement to January/February 2016, Volume 39, Number 1S.
2. Infusion Nursing: An Evidence-Based Approach, Third Edition edited by Mary Alexander, Ann Corrigan, Lisa Gorski, Judy Hankins, and Roxanne Perucca.
3. INS (Infusion Nurses Society) Policies and Procedures for Infusion Nursing, 3rd Edition.