



Rancho Los Amigos National Rehabilitation Center

DEPARTMENT OF NURSING

CLINICAL

POLICY AND PROCEDURE

SUBJECT: BLOOD CULTURE

Policy No.: C301
Effective Date: 02/1999
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Purpose: To define the method of obtaining a blood culture (BC) specimen to determine the presence of pathological organisms in the bloodstream, identify infectious organisms, and evaluate the efficacy of antibiotic therapy.

Physician's Order Required: Yes

Performed By: RN, LVN with IV Certification

Equipment/Supplies:

Blood Culture bottles (Aerobic & Anaerobic)	1 pair of clean gloves
Labels	Biohazard plastic lab bag
Chlorhexidine	Alcohol pads
Tourniquet	Butterfly Vacutainer Blood Collection set
2x2 Gauze	

Policy Statements:

- A. Blood cultures are to be drawn directly from a venipuncture site when at all possible (see Nursing Policy C121 *Obtaining Blood by Venipuncture*).
- B. Use central venous or PICC lines only as a last resort, (see Nursing Policy C122.14 *Drawing Blood from a Central Venous Catheter (CVC)* for the blood drawing procedure).

KEY POINT: Ensure samples are delivered to the lab within 20 minutes. Specimens should be kept at room temperature. Do not refrigerate or freeze blood cultures.

- C. If other than venipuncture is used, the site (e.g., CVC) is to be specified in the order.

Procedural Steps:

- A. Examine culture bottle for turbidity and discoloration and check expiration date. Turbidity or discoloration indicates contamination of culture media. Do not use if any of the above exist.
- B. Identify patient using 2 patient identifiers.
- C. Explain procedure to patient.
- D. Perform hand hygiene.
- E. Scan the patient's wristband (Inpatient only).
- F. Print specimen labels.
- G. Perform hand hygiene.

- H. Don gloves.
- I. Open all packages and prepare the supplies.
- J. Remove plastic caps from the BC bottles. Clean rubber stoppers with an alcohol pad and leave the alcohol pad on each stopper while performing the venipuncture.
- K. Open the blood collection set and connect to the blood culture device.
- L. Open the Chlorhexidine applicator.
- M. Remove gloves
- N. Perform hand hygiene.
- O. Don new gloves
- P. Apply tourniquet above venipuncture site.
- Q. Palpate and visualize a prominent vein.
- R. Cleanse the skin over the venipuncture site with a Chlorhexidine applicator using back-and-forth strokes for approximately 30 seconds. Completely wet the treatment area with antiseptic and allow it to air dry for at least 30 seconds.

KEY POINT: Do not palpate the vein after cleansing to avoid contaminating the site. If it must be done, cleanse the skin as described in section O above. If a patient is allergic to Chlorhexidine, use 70% alcohol ONLY.

- S. Perform venipuncture.
- T. Connect the BC bottles (Aerobic bottle first) to the blood culture device. Obtain 10 mLs of blood for each bottle. Repeat for anaerobic blood culture. If it is not possible to obtain 10mLs of blood for each bottle, priority should be given to the aerobic sample.
- U. Release the tourniquet, withdraw, and lock the needle sheath.
- V. Apply pressure to the venipuncture site using a 2x2.
- W. Gently mix each bottle. Do not shake bottles. Turbulence introduces excessive air into the specimen and may invalidate the test results.
- X. Label BC bottles, include the date, time, amount, and employee number of the individual drawing the blood.
- Y. Scan specimen labels and sign tasks (Inpatient Only)
- Z. Place blood culture bottle in Biohazard plastic bag.
- AA. Remove gloves and perform hand hygiene.
- BB. Take specimen to the laboratory immediately.

Key Point: Use different sites when more than one blood culture set is ordered (e.g., Blood Culture X2 or Blood Culture X3). When drawing blood cultures and labs together with same venipuncture, draw blood cultures first.

CC. Dispose of used needles/safety devices and syringe in rigid, sharps disposal container.

Revised by: Roumayne David, BSN, RN

References:

Lippincott Procedures. (2022). Blood Culture Sample Collection. Retrieved from
<https://procedures.lww.com/lnp/view.do?pId=6608851&hits=collect,collection,culture,blood,collected,collecting,cultures,collections&a=true&ad=false&q=blood%20culture%20collection>

02/99 – Revised
07/02 – Revised
04/06 – Revised
02/11 – Revised
05/11 – Revised
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11/18 – Revised
09/21 – Revised
11/23 – Revised