



Simulation: Improper Scrubbing Technique

Time: 5 minutes

Max number of people per station: 10

Number of facilitators per station: 1-2

Supplies Needed:

- Two blood culture vials
- Alcohol prep pads x 2
- Gloves
- Fluorescein oil
- 2x2 Gauze pads
- UV flashlight
- Resource questionnaire **Blood Culture 2.1-Improper versus Proper Technique (see below)**

During this simulation, blood culture technique will be reviewed. Best practice is to disinfect the rubber diaphragm of the blood culture vials with 70% alcohol sterile pad.

Steps to Perform Simulation

1. Two blood culture bottles will be used for example. Prep the rubber diaphragm of one blood culture vial with fluorescein oil. This is the bottle that will not be disinfected.
2. Disinfect the second vial with a 70% sterile alcohol swab.
3. Label the bottles as non-disinfected and disinfected respectively.
4. Instructor will point out that the rubber diaphragm of both blood culture vials with UV flashlight. The fluorescein oil will show the germs on the non-disinfected (no scrub) and no oil on the vial properly disinfected.
5. Learners will answer quiz questions on improper versus proper technique found in **Appendix-Blood Culture 2.1**.

Debriefing Script*:

Facilitator: Thank you for participating in this debriefing session about the importance of proper scrubbing technique for blood culture vials. Let's discuss the key points and address any questions or concerns you may have.

Question 1: Why is disinfecting the rubber diaphragm of the blood culture bottle important?

Answer: Disinfect the rubber diaphragm of the blood culture vials with at least 70% isopropyl alcohol to ensure no contaminants enter the blood culture bottle.

Question 2: How do germs living on dry surfaces impact blood culture collection?

Answer: Germs live on the skin and on dry surfaces. Cleaning the skin adequately is only part of the prevention process. Scrubbing the rubber diaphragm of the blood culture vial with 70% isopropyl alcohol can prevent those germs living on a dry surface from entering the blood culture vial.

Question 3: What is important about allowing alcohol to dry after scrubbing?

Answer: The alcohol must have time to dry prior to transferring the sample into the bottle through the rubber diaphragm. This helps ensure the alcohol does not affect the sample.

Question 4: When would sterile gloves be recommended for use to obtain blood cultures, and why?

Answer: Sterile gloves are only required if re-palpation of the site is required. Creating a standardized process for your facility will decrease the likelihood of error. The use of blood culture kits and standard procedures can decrease the risk of contamination.

Facilitator: Thank you for your participation. Understanding the importance proper scrubbing of blood culture bottles is vital to prevent contamination. If you have any further questions or need clarification on any topic, please feel free to ask.

***Disclaimer:** Please follow this debriefing script. The skill of debriefing is a process that takes time and experience to learn. Please do not use these debriefing tools outside of this situation without appropriate knowledge and experience.

Blood Culture 2.1-Improper versus Proper Technique

1. Blood cultures routinely drawn from peripheral sites.

Proper Technique	Improper Technique
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2. Using CHG/alcohol sponge, scrub the venipuncture site using back and forth motions for 30 seconds. Allow site to dry for a minimum of 30 seconds.

Proper Technique	Improper Technique
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3. Repalpating the site wearing clean non-sterile gloves after skin antisepsis is performed.

Proper Technique	Improper Technique
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4. Obtaining at least 10ml of blood per culture bottle.

Proper Technique	Improper Technique
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5. Using 70% isopropyl alcohol pad to disinfect the rubber diaphragm of the blood culture vial and allow to dry.

Proper Technique	Improper Technique
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6. **Holding on to the end of the syringe as you connect the transfer device to ensure a good connection.**

Proper Technique	Improper Technique
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7. **If unable to get specimen to lab immediately after collection, place in freezer until transport.**

Proper Technique	Improper Technique
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Answers: 1) Proper 2) Proper 3) Improper 4) Proper 5) Proper 6) Improper 7) Improper

Blood Culture Contamination: An Overview for Infection Control and Antibiotic Stewardship Programs Working with the Clinical Laboratory. (n.d). CDC. Retrieved from [Blood Culture Contamination: An Overview for Infection Control and Antibiotic Stewardship Programs Working with the Clinical Laboratory \(cdc.gov\)](#)

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