Simulation: Blood Culture: Re-Palpation Contamination
Time: 5 minutes
Max number of people per station: 10 **Number of facilitators per station**: 1-2 **Supplies Needed:**

- Gloves
- Fluorescein powder
- Hand Sanitizer
- 2% CHG/70% alcohol prep sponge
- Handheld UV flashlight
- Baby wipes
- Mannequin arm (optional)

S**teps to Perform Simulation**

1. Prior to simulation, prep gloves by placing 1/8 tsp of fluorescein powder inside of the gloves. Close the opening of the gloves with a squeezed hand and work the powder around inside the glove ensuring it gets into the fingers of the gloves.
2. Prep the index finger of the glove with powder as well. Try to make it look as inconspicuous as possible.
3. Begin simulation by having participants choose a partner. Determine which partner will be performing skin antisepsis and which will be the patient (using the mannequin arm is the alternative)
4. Participants perform hand hygiene and don prepped contaminated gloves.
5. Have participants perform adequate skin antisepsis with CHG for a full 30 seconds.
6. Once clean and dry, have participant performing simulation (***incorrectly***) re-palpate the site to find the vein.
7. Assess the site with UV light for contamination.
8. Additionally, have the participant (***incorrectly)*** pop their index finger out of the glove to palpate.
9. Again, evaluate the area for contamination with UV light.
10. Participants can then wash their hands and skin to remove fluorescein powder.

Debriefing Script*:

Facilitator: Thank you for participating in this debriefing session about the importance of not re-palpating after skin antisepsis when collecting blood cultures. Let's discuss the key points and address any questions or concerns you may have.

Question 1: Why is skin antisepsis important for blood culture collection?

> **Answer**: Skin antisepsis can prevent blood culture contamination. Because skin is a reservoir for germs, those germs can easily be transferred from the skin into the blood culture causing contamination.

Question 2: What are the implications of improper skin antisepsis?

Answer: Improper skin antisepsis can lead to contamination. Contamination can lead to inappropriate management and unnecessary antibiotic use causing harmful side effects for the patient and over increase in antibiotic resistance.

Question 3: What are the key steps to ensuring effective skin antisepsis?

Answer: Proper skin antisepsis at the phlebotomy site with 2% alcoholic chlorohexidine or 70% isopropyl alcohol, followed by 2% chlorhexidine is imperative. Chlorohexidine scrub requires a vigorous back and forth scrubbing motion. Allow at least 30 seconds for dry time.

Question 4: What would be a potential benefit of using sterile gloves when collecting blood cultures?

Answer: The use of sterile gloves in not required, but has been shown to decrease contamination rates when implemented in contamination reduction programs. Generally though, hand hygiene with clean nonsterile gloves are recommended. Sterile gloves should be used if re-palpation of the disinfected skin site in necessary. Best practices for glove use in phlebotomy include: performing hand hygiene at the correct five moments and using one pair of gloves per procedure. It would not be appropriate to reuse gloves or use the same pair of gloves for another patient.

Facilitator: Thank you for your participation. Understanding the risk of contamination from re-palpating will decrease the likelihood of blood culture contamination if re-palpating is avoided. 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 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)

World Health Organization (WHO). (2010). *Infection prevention and control practices*. WHO. Table 2.2, Infection prevention and control practices - WHO Guidelines on Drawing Blood - NCBI Bookshelf (nih.gov)