20.9: Checklist for Wound Culture

Wound cultures are obtained from wounds suspected to be infected. Results are used to determine treatment options. Wound culture results indicate the type and number of bacteria present, as well as the antibiotics to which bacteria are susceptible. When performing a wound culture, it is vital for the nurse to avoid contamination and to use evidence-based techniques to obtain a good specimen that the patient’s treatment plan will be based upon. [1]

Use the checklist to review the steps to “Perform a Wound Culture.”

Steps

Disclaimer: Always review and follow agency policy regarding this specific skill.

1. Gather supplies: sterile wound swab, sterile normal saline, sterile irrigation kit with 30-60 mL syringe, and sterile 2” x 2” gauze.
2. Perform safety steps:
   - Perform hand hygiene.
   - Check the room for transmission-based precautions.
   - Introduce yourself, your role, the purpose of your visit, and an estimate of the time it will take.
   - Confirm patient ID using two patient identifiers (e.g., name and date of birth).
   - Explain the process to the patient and ask if they have any questions.
   - Be organized and systematic.
   - Use appropriate listening and questioning skills.
   - Listen and attend to patient cues.
   - Ensure the patient’s privacy and dignity.
Assess ABCs.

3. Prepare the environment, position the patient, adjust the height of the bed, and turn on the lights. Ensure proper body mechanics for yourself and create a comfortable position for the patient. Ensuring proper lighting allows for good visibility to assess the wound. Premedicate if indicated and ensure patient’s comfort prior to and during the procedure.

4. Place a clean, dry barrier on the bedside table or create a sterile field per agency policy. Pour sterile saline into the irrigation tray.

5. Perform hand hygiene and apply nonsterile gloves.

6. Remove the dressing and expose the patient’s wound. Dispose of the soiled dressing according to agency policy.

7. Remove gloves and perform hand hygiene.

8. Put on a new pair of nonsterile or sterile gloves, depending on the patient’s condition and the type, location, and depth of the wound.

9. Irrigate the wound with sterile normal saline solution to remove surface debris or exudate and to prevent specimen contamination. Alternatively, cleanse the wound with a commercial wound irrigation device.

10. Wipe the surface of the wound with a sterile gauze pad moistened with normal saline solution to remove surface contaminants.

11. Gently blot excess normal saline solution from the wound bed with a dry sterile gauze pad.

12. Remove gloves and perform hand hygiene.

13. Put on new nonsterile gloves.

14. Open the swab specimen collection and transport system. Prepare the contents as needed following the manufacturer’s instructions.

15. Use the culture swab(s) to collect the specimen according to agency policy.
   - Note that some agencies use swab collection and transport systems that contain specific swabs designed for anaerobic and aerobic specimen collection.

16. If the wound bed appears dry, moisten the swab with normal saline solution.

17. Identify a 1-cm$^2$ area of viable wound tissue at or near the center of the wound.
   - Note: The culture must be obtained from the cleanest tissue possible and not from pus, slough, eschar, or necrotic tissue.

18. Rotate the tip of the swab over the identified 1-cm$^2$ area of the wound for 5 seconds, applying sufficient pressure to express fluid from the wound.

19. Remove the swab from the wound.

20. Immediately insert the swab into the appropriate transport system following the manufacturer’s instructions for use. Use caution to avoid contaminating the swab when placing it into the transport system:
   - Clinical alert: Note that the culture must come from the cleanest tissue possible and not from pus, slough, eschar, or necrotic material. Never collect exudate from the skin.

21. Remove gloves and perform hand hygiene.

22. Put on a new pair of nonsterile or sterile gloves depending on the patient’s condition and the type, location, and depth of the wound.

23. Apply a new sterile dressing to the patient’s wound using a sterile, no-touch technique.

24. Assist the patient to a comfortable position, ask if they have any questions, and thank them for their time.

25. Label the specimen in the presence of the patient (such as name, date, time, location of the wound, and site and source of the specimen) to prevent mislabeling.
Note the patient’s recent or current antibiotic therapy on the laboratory request form because it might affect test results. If possible, obtain a culture specimen before starting antimicrobial therapy.

26. Ensure safety measures when leaving the room:
   ◦ CALL LIGHT: Within reach
   ◦ BED: Low and locked (in lowest position and brakes on)
   ◦ SIDE RAILS: Secured
   ◦ TABLE: Within reach
   ◦ ROOM: Risk-free for falls (scan room and clear any obstacles)

27. Immediately send the specimen to the laboratory in a laboratory biohazard transport bag with a completed laboratory request form.
