



N11 – NURSING FOUNDATIONS II

ACTIVITY GUIDE

Surgical Hand Scrubbing in the Perioperative Setting

PURPOSE

In the surgical environment, skin remains an important possible source of microbial contamination. While surgical team members wear sterile gloves, the skin of their hands and forearms should be scrubbed before surgery to minimize the amount of pathogenic organisms that might enter the body if a glove tears. “The purpose of the surgical hand scrub is to remove debris and transient microorganisms from the nails, hands, and forearms; reduce the resident microbial count to a minimum; and inhibit rapid rebound growth of microorganisms.” (International Federation of Perioperative Nurses, 2021)

On fingernail and skin condition, and other recommendations (AORN, 2022)

- Maintain healthy, natural fingernails no longer than 2 mm (0.08 inches).
Rationale: *The skin under the nail harbors most microorganisms found on the hand. The risk of tearing gloves increases if fingernails extend past the fingertips.*
- Skin on hands and arms should be intact.
Rationale: *Breaks in skin integrity and open lesions increase the risk of patient and surgical team member infection. Cuts, abrasions, exudative lesions, and hangnails tend to ooze serum, which may contain pathogens. Broken skin permits microorganisms to enter the various layers of skin, providing deeper microbial breeding grounds.*
- Do not wear artificial fingernails or extenders. Do not wear lacquer (i.e., nail polish) or enhanced nail lacquer (e.g., ultraviolet cured [gel], dipped nail coating) while performing the scrub role.
Rationale: *Artificial nails may harbor organisms and prevent effective hand washing.*
- Removes all jewelry, watch, and bracelet/s.
Rationale: *During hand washing, rings, watches, and bracelets may harbor or protect microorganisms from removal. Allergic skin reactions may occur because of a scrub agent or a glove powder accumulating under the jewelry.*

LEARNING OUTCOME

At the end of the session, the students should be able to demonstrate surgical hand scrubbing/hand rubbing.

Instructions: Check the appropriate column below based on the student’s performance or non-performance of the expected skill. Check the “**D** = DONE” or “**O** = OBSERVED” column if the skill is performed and “**ND** = NOT DONE” if the skill is not performed. Any comments may be written in the last column.

Surgical Handwashing Checklist

Name of Student _____ Student Number _____
 Name of Evaluator _____ Group _____
 Date of Evaluation _____ Mark PASS PRACTICE

PROCEDURE	PERFORMED			COMMENTS
	D	O	ND	
PREPARATION				
Remove rings, wristwatch and bracelets before performing surgical hand scrub.				
Trim fingernails and remove nail polish. Make sure you are free of any open wounds in your hands.				
Cover hair and ears completely with a surgical hair cap.				
Wear appropriate surgical face mask.				
Apply shoe covers/booties as needed.				
For povidone iodine or chlorhexidine gluconate solution: Locate the scrubbing sink with the foot pedal that controls water flow. Locate the surgical soap dispenser.				
For alcohol-based hand rub solution: Understand how sensors work for alcohol-based solution dispensers.				
Open sterile package containing a surgical gown using aseptic technique; Create a sterile field using the inside of the gown's wrapper.				
Open the sterile towel and drop it onto the center of the sterile field.				
Open outer wrapper of sterile gloves, and drop inner package of gloves onto the sterile field beside the folded gown and towel				

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PROCEDURE	PERFORMED			COMMENTS
	D	O	ND	
SURGICAL HANDWASHING PROCEDURE (IFPN, 2021)				
<i>Perform Hand Hygiene</i>				
1. Nails should be kept short.				
2. Removes all jewelry, watch and bracelet/s.				
3. Check hands for breaks in the skin, such as hangnails or cuts.				
4. Opens prepackaged scrub brush if available.				
5. Turn on water and adjust flow. Adjusts water flow and temperature so water is warm.				
6. Under flowing water, wets hand, then forearm (from fingertips to elbows) keeping hands and forearm above elbow level during the entire procedure.				
7. Applies a liberal amount of soap onto hands and arms to 2 inches above the elbows.				
8. Takes nail file in the prepackaged scrub brush and uses nail file under running water. Clean under each nail of both hands, and drop file into trash bin when finished.				
9. Wets and applies soap to scrub brush				
10. Using the counted stroke technique, the digits, hands, forearms, and elbows are divided into four planes. a. Each plane requires 10 strokes with the scrub sponge. b. The digits have 4 planes and each digit and each digit will have a total of 40 strokes. c. The dorsal and palm of the hand will have a total of 30 strokes. d. The forearm has 4 planes and it will have a total of 40 strokes. e. The arm 5 cm above the elbow has 4 planes and it will have a total of 40 strokes. f. The counted stroke technique will be completed on the right and left side.				
11. Drops brush into the sink or the designated trash bin.				
12. Maintaining the hands and arms above elbow level, places the fingertips under running water and thoroughly rinse the fingers, hands, and arms (allows the water to run off your elbow into the sink).				

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PROCEDURE	PERFORMED			COMMENTS
	D	O	ND	
13. Rinsing is performed from fingertips to elbows, using the waterflow and not the hands. Do not vigorously shake hands to dispel water from hands and arms as this may contaminate surrounding attire and supplies.				
14. Keeps arms flexed and elevated, then proceeds to area with sterile items				
15. Secures sterile towel by grasping it on one edge, opening the towel, full length, making sure it does not touch your clothes.				
16. Dries each hand and arm separately; extends one side of the towel around fingers and hand and dry in a rotating motion up to the elbow.				
17. Reverses towel and repeats same action on other hand and arm thoroughly drying the skin.				
18. Discards towel into the designated trash bin.				

<i>Name of Student Observer & Signature</i>	<i>Name of Faculty & Signature / Date</i>

References

Daniels, R., Wilkins, F., & Grendell, R. (2010). *Fundamentals Of Nursing: Nursing Foundations*, Volume 1

International Federation of Perioperative Nurses. (2021). IFPN Guideline for surgical hand scrubbing in the perioperative setting. In <https://www.ifpn.world/>. Retrieved August 27, 2024, from https://www.ifpn.world/download_file/408/220

Kozier, B., Erb, G., Berman, A., & Snyder, S. (2007). Fundamentals Of Nursing: Concepts, Process, & Practice. (8th Ed). New Jersey: Pearson.

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