

I. PURPOSE

Effective hand hygiene removes transient microorganisms, dirt, and organic material from the hands and decreases the risk of cross contamination from patients, patient care equipment, and the environment.

Hand hygiene is the single most important strategy to reduce the risks of transmitting organisms from one person to another or from one site to another on the same patient. Cleaning hands promptly and thoroughly between patient contact and after contact with blood, body fluids, secretions, excretions, equipment and potentially contaminated surfaces is an important strategy for preventing healthcare-associated infections.

II. POLICY

- A. *CLEAN HANDS BEFORE AND AFTER ROUTINE PATIENT CARE ACTIVITIES AND AFTER HAND-CONTAMINATING ACTIVITIES.*
- B. *THE CHOICE OF ALCOHOL-BASED HAND RUB (ABHR), ANTIMICROBIAL SOAP, OR SURGICAL HAND PREPARATION IS BASED ON:*
 1. The degree of hand contamination
 2. The degree to which reduced bacterial burden is required according to activity (see Table A. Guide for Hand Hygiene Decision-making):
 3. Transmission and patient risk factors:
 - i. practice patient care
 - ii. High risk patient care (e.g., adult, pediatric, neonatal critical care; hemodialysis; transplant; immunosuppressed)
 - iii. Confirmed or suspected resistant organisms
 - iv. Confirmed or suspected *Clostridium difficile* infection
 4. Invasive or surgical procedure
- C. *RINGS OTHER THAN PLAIN BANDS ARE DISCOURAGED FOR HEALTH CARE WORKERS. BANDS MAY BE LEFT IN PLACE WHILE CLEANING HANDS, EXCEPT IN THE ICN.*
- D. *ARTIFICIAL NAILS OR ENHANCEMENTS ON STAFF WHO HAVE DIRECT PATIENT CONTACT, WHO PREPARE INSTRUMENTS FOR STERILE PROCEDURES OR WHO PREPARE STERILE PHARMACEUTICALS IS PROHIBITED.*
 1. Nails are to be kept short (1/4 inch of white visible above the quick).
 2. Nails are to be kept clean.
 3. Artificial fingernails and enhancements are prohibited.
 4. Nail polish in good repair is permitted.

Table A. Guide for Hand Hygiene Decision-making

TYPE	PRODUCT	METHOD	PURPOSE
Hand decontamination	Alcohol-based hand rub (ABHR)	Rub product over all surfaces of hands until dry, at least 20 seconds. Hands must contain NO VISIBLE SOILING.	To destroy transient and resident microorganisms on UNSOILED hands.
Antimicrobial hand antisepsis	Antimicrobial soap	Rub antimicrobial soap over all surfaces of the hands and wrists for at least 15 seconds. Rinse with water and pat dry with paper towels. (Total time 1 – 1.5 minutes)	To remove soil and remove or destroy transient microorganisms.
Surgical hand asepsis	Antimicrobial soap or alcohol- and chlorhexidine (CHG)-based preparation	Antimicrobial soap or detergent preparation and water with sponge to achieve friction for at least 120 seconds; OR alcohol- and CHG-based preparation per manufacturer's recommendations. Use Soap and water hand wash prior to using alcohol &CHG based preparations.	To remove or destroy transient microorganisms and reduce resident flora.

III. PROCEDURES

A. *HOW TO CLEAN HANDS (REFER TO TABLE B):*

1. Use ABHR for routine hand decontamination when hands are not visibly soiled.
2. Use ABHR or antimicrobial soap for hand washing before invasive procedure such as IV insertion, bronchoscope or urinary catheter insertion.
3. Use soap and water hand washing for visibly soiled hands
4. Use soap and water hand washing after contact with patients with *C.difficile* or their environment.
5. Use a surgical hand preparation before performing surgery.

B. *WHEN TO CLEAN HANDS: ALL STUDENTS, STAFF AND FACULTY HAVING DIRECT PATIENT CARE WILL CLEAN HANDS AT THE FOLLOWING TIMES:*

1. At the beginning of work
2. Upon **entering** and **exiting** the patient environment
3. Before and after patient contact, including dry skin contact
4. After removing gloves
5. Before performing invasive procedures
6. Before and after contact with wounds
7. After contact with patients' body substances
8. After handling equipment, supplies, or linen contaminated with body substances

9. Before handling sterile or clean supplies
10. After using the restroom
11. After touching or blowing your nose
12. Before leaving the unit

C. HAND LOTION MAY BE USED TO PREVENT SKIN DRYNESS AND DAMAGE. LIMITATIONS INCLUDE:

1. Lotion may promote the growth of bacteria. Do not refill containers.
2. Petroleum- and mineral oil-based lotions degrade latex.
3. Petroleum-based lotions negate the persistent antimicrobial effect of CHG

D. PROCEDURE FOR USING ALCOHOL-BASED HAND RUB (ABHR)

1. Onto hands that are NOT VISIBLY SOILED, apply product to palm of one hand and rub hands together, covering all surfaces of hands and fingers until hands are dry.

Follow the manufacturer's recommendations for product volume.

E. PROCEDURE FOR SOAP AND WATER HANDWASHING

1. Stand near sink, but avoid touching it, as the sink itself may be a source of contamination.
2. If using a lever-operated paper towel dispenser, dispense a portion of towel before washing hands.
3. Using tepid water, wet hands. Avoid splashing and keep moisture away from sleeves and clothing. Avoid using hot water, as repeated exposure to hot water may increase the risk of dermatitis.
4. Apply soap product according to manufacturer's recommendations.
5. Rub hands together vigorously for at least 15 seconds, covering all surfaces of the hands and fingers.
6. Rinse hands thoroughly.
7. Dry hands with disposable towel.
8. Use towel to turn off faucet for handle-operated faucets to prevent contaminating your hands. **Total time = 1 –1.5 minutes**

TABLE B. METHOD OF HAND CLEANING INDICATED FOR REDUCING BACTERIAL BURDEN BASED UPON ACTIVITY						
Activity Method	Routine Patient Care	High Risk Patient Care	Invasive Procedure	Resistant Organisms	<i>Clostridium difficile</i>	Surgery
Hand decontamination: ABHR on visibly clean hands	√	√	√	√		
Antimicrobial hand washing: antimicrobial soap and water	√	√	√	√	√	
Surgical hand sepsis: alcohol- and CHG-based hand prep or traditional surgical skin prep. Use Soap and water hand wash prior to using alcohol &CHG based preparations.						√

F. SURGICAL TEAM HAND HYGIENE

1. All members of the sterile surgical team must properly complete a surgical hand preparation with either:
 - a. Alcohol- and CHG-based preparation, using brushless and scrub-less cleaning techniques or
 - b. Traditional surgical hand asepsis
2. Fingernails must be trimmed short and be free of artificial nails and enhancements.
3. Hands and forearms must be free of open lesions and breaks in skin integrity.

G. GENERAL PROCEDURE FOR ALCOHOL- AND CHG-BASED SURGICAL ANTISEPTIC HAND PREPARATION ("BRUSHLESS, SCRUB LESS")

1. Pre-wash hands, nails and forearms prior to each alcohol-based surgical hand rub per CDC guidelines:
 - a. Remove all jewelry from hands and forearms.
 - b. Wet hands and forearms.
 - c. Apply sufficient soap to work up lather.
 - d. Wash from fingertips to 3 inches above the elbows.
 - e. Clean nails and subungual areas with disposable nail cleaner under running water.
 - f. Discard nail cleaner in receptacle.
 - g. Dry hands and arms thoroughly.

2. Apply alcohol- and CHG-based preparation according to the manufacturer's instructions:
 - a. Dispense one aliquot (2 milliliters) of antiseptic hand prep into the palm of one hand. Dip the fingertips of the opposite hand into the hand prep and work it under the nails. Spread the remaining antiseptic hand prep evenly over the hand and above the elbow, covering all surfaces.
 - b. Using second aliquot (2 milliliters) of antiseptic hand prep, repeat above procedure with the other hand.
 - c. Dispense a third aliquot (2 milliliters) of antiseptic hand prep into either hand, and re-apply to all aspects of both hands up to the wrist. To facilitate drying, continue rubbing hand prep into hands until dry.
 - d. Allow product to air dry before donning gloves.
 - e. Do not dry with towels.

H. GENERAL PROCEDURE FOR SURGICAL HAND ASEPSIS USING SOAP AND WATER

1. Remove all jewelry from hands and forearms.
2. Prepare for the surgical hand asepsis.
3. Adjust water temperature.
4. Keep arms level and well away from body. Keep hands up above the elbows for the duration of the scrub.
5. Remove brush from wrapper. Use the soft nonabrasive sponge.
6. Pre-wash the hands and forearms.
7. Wet hands and forearms.
8. Apply sufficient water to sponge and work up lather.
9. Wash from fingertips to 3 inches above the elbows.
10. Clean nails and subungual areas with disposable nail cleaner under running water.
11. Discard nail cleaner in receptacle.
12. Rinse hands and arms thoroughly.
13. Moisten sponge and begin surgical hand asepsis. Apply 3-5 milliliter of antimicrobial soap if the sponge does not contain the soap solution. Start at the fingertips and nails.
14. Apply product to all sides of each digit, including web spaces (a counted brush stroke method may also be used) between fingers.
15. Wash the palm and back of the hand using a circular motion.
16. Repeat for the second hand. Each hand will be washed for one minute.
17. Wash the arm on all sides, up to and including the elbow and antecubital spaces, to a level of 3 inches above the elbow.
18. Wash each lower forearm for 30 seconds. Wash each upper arm for 30 seconds.
 - a. Hold hands above the level of the elbows while scrubbing. Water flows from the level of the elbows while scrubbing. Hands and arms are now the clean area and are held away from the body.
 - b. Add small amounts of water and/or soap to the sponge during the wash to develop and keep suds. Avoid splashing soap or water on scrub attire.

19. Discard the sponge in the wastebasket after the wash.
20. Rinse hands and arms from the fingertips to above the elbow. Never rinse back and forth or rinse from elbows to fingers.
21. Proceed to the operating rooms for gowning and gloving while holding arms upright, bent at the elbow.

IV. DEFINITIONS

- A. *ARTIFICIAL FINGERNAILS & ENHANCEMENTS (SEE EMPLOYEE DRESS STANDARDS A.3)*
<http://manuals.ucsfmedicalcenter.org/adminmanual/individualpolicies/employeedressstandards.pdf>

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