

Department: INFECTION PREVENTION AND CONTROL	Policy # SCOC.IC.0038	
Title: Hand Hygiene	Effective Date: 3/74	Page 1 of 6
	Reviewed/Revision Dates: Revision Date: 7/19/94, 5/02, 2/06, 5/09, 3/12, 8/12, 7/14, 1/16 Review Date: 5/97, 9/99, 9/02, 9/05, 9/07, 11/10	
Policy Owner: INFECTION PREVENTION AND CONTROL		
Accountable Department or Committee: Infection Control Committee Approved by: Infection Control Committee	<input checked="" type="checkbox"/> MSA Wide <input type="checkbox"/> Department Specific	<input checked="" type="checkbox"/> Clinical <input type="checkbox"/> Non-Clinical <input type="checkbox"/> Inpatient only <input type="checkbox"/> Ambulatory only

POLICY AND/OR PURPOSE:
1.0 BACKGROUND

- Studies have shown that handwashing causes a reduction in the carriage of potential pathogens on the hands.
- Microorganisms proliferate on the hands within the moist environment of gloves.
- Handwashing results in the reduction of patient morbidity and mortality from health care associated infections.
- The Centers for Disease Control and Prevention states that handwashing is the single most important procedure for preventing health-care associated infections.
- Artificial nails are more likely than natural nails to show higher microbial counts before and after hand hygiene which can lead to health care associated infections.
- There are four types of hand washing (see body of policy for detailed instructions):

TYPE	PURPOSE	METHOD
Routine Handwashing	To remove soil and transient microorganisms.	Wash hands with soap and water for at least 15 seconds.
Hand antisepsis	To remove soil and remove or destroy transient microorganisms.	Wash hands with antimicrobial soap and water for at least 15 seconds.
Hand rub/degerming	To destroy transient and resident microorganisms on UNSOILED hands.	Rub alcohol-based hand degermer into hands vigorously until dry.
Surgical hand scrub	To remove or destroy transient microorganisms and reduce resident flora.	Wash hands and forearms with antimicrobial soap and water with brush to achieve friction. Or alcohol-based preparation rubbed vigorously until dry.

2.0 PURPOSE

The purpose of handwashing is to remove dirt, organic material and transient microorganisms from the hands so as to decrease the risk of cross contamination.

3.0 POLICY

3.1 The choice of plain soap, antimicrobial soap, alcohol-based hand degermer, or surgical hand scrub should be based on standards of care, the degree of hand contamination and whether it is important to reduce and maintain minimal counts of resident flora, as well as to mechanically remove the transient flora on the hands of health care personnel. Anything that precludes this is not permitted e.g. artificial nails, rings and wrist/hand splints.

- Hand decontamination with alcohol based degermer (gel, rinse or foam) is the preferred method of hand hygiene for all situations as defined in 3.2 below, unless hands are visibly soiled or patient has *Clostridium difficile*.
- Handwashing with plain or antimicrobial soap is preferred prior to food preparation.
- Hand decontamination/antiseptis with antimicrobial soap or alcohol based hand degermer is indicated before and after all patient care in high risk areas, i.e. ICU/NICU, Dialysis, Hematology and Oncology, and when caring for patients with immunosuppression, or multi-drug resistant organism and before invasive procedures such as IV insertion, bronchoscopy.
- Hand decontamination with alcohol based degermer should be used where no sinks are available.
- Surgical hand scrubbing is required prior to surgical procedures.

3.2 All personnel and physicians must perform hand hygiene according to the World Health Organization *Five Moments for Hand Hygiene* Requirements defined as:

- Before and after having direct contact with patients.
- Before performing an aseptic task.
- After exposure to blood or body fluids
- Before and after contact with the patient's surroundings.
- Before and after gloving

3.3 The use of alcohol rinse products instead of handwashing is acceptable in situations where the hands are not soiled with physical dirt. Alcohols are poor cleaning agents and hands must be free from dirt for the alcohol to be effective.

3.4 Soap from wall-mounted dispensers is to be used for routine handwashing. Bar soap is unacceptable.

3.5 **Hospital approved** hand lotion is provided to prevent skin dryness and damage.

- Lotion is a potential media for bacterial growth and is provided only in disposable containers or containers that are not refilled.
 - If latex gloves are used lotion must be water-based because petrolatum and mineral oil interfere with latex. Kaiser's standard hand lotion is water-based.
 - CHG (chlorhexidine gluconate), which is a component of some of Kaiser's standard antimicrobial soap products and surgical scrubs, is compatible with Kaiser's standard hand lotion. It is not compatible with most commercially available lotions, which can inactivate the CHG. Consequently, personal hand lotions should not be brought in for use at work.
- 3.6 Rings other than plain bands are discouraged for health care workers. Bands may be left in place while washing.
- 3.7 The natural nails of healthcare workers are to be kept short, i.e. not extending beyond the tips of the fingers. Nail polish that is unchipped and applied within 4 days may be worn by staff. Studies have demonstrated that nail polish begins to harbor microorganism when it is chipped or worn more than 4 days. In the event of a glove tear or perforation, the health care's practitioner's chipped nail polish potentially could cause a Healthcare associated infection. Chipped nail polish should be removed to prevent contamination of the environment of the patient.
- 3.8 Artificial nails, nail tips, and silk wraps are prohibited for all health care workers and providers who have direct, "hands-on" patient care, such as, Perinatal services, Labor and Delivery, Post-Partum, Nursery), invasive or diagnostic procedures or therapies, Laboratory Services, Perioperative Services, Sterile Processing Dept, Intensive care units (adult, pediatric newborn), etc. Other workers involved in aseptic procedures such as preparing medicines for patients etc., or who have contact with the patient environment such as pharmacy, food handlers,
- 3.9 Hand/wrist splints and any type of dressing that may have direct patient contact and may preclude handwashing and hand degerming are prohibited for all healthcare workers and providers. Consult with Infection Control Professional and EHS for case by case assessment.
- 3.10 All members of the Surgical Team must properly complete a Surgical Hand Scrub prior to beginning the procedure.
- Fingernails must be trimmed short and be free of artificial nails and tips.
 - Hands and forearms must be free of open lesions and breaks in skin integrity.

4.0 PROCEDURE FOR ANTIMICROBIAL SOAP AND WATER HANDWASHING

- 4.1 Stand near sink, but avoid touching it as the sink itself may be a source of contamination.

- 4.2 Using tepid water, wet hands. Avoid splashing and keep moisture away from sleeves and clothing.
- 4.3 Generously apply soap.
- 4.4 Rub hands vigorously together causing friction to clean between fingers, around and under fingernails, the back of the hands, wrists, and palms for 15 seconds.
- 4.5 Rinse hands well under running water.
- 4.6 Dry hands with paper towel.
- 4.7 Use paper towel to turn off faucet if there is not a foot or knee control to prevent Contaminating hands.

5.0 PROCEDURE FOR ANTISEPTIC HAND RUBS (WATERLESS CLEANERS)

- 5.1 Assuming hands are NOT SOILED, apply enough alcohol gel or foam to cover the entire surface of hands and fingers (volume per manufacturer recommendations).
- 5.2 Rub hands vigorously together causing friction to degerm between fingers, around and under fingernails, the back of the hands, wrists and palms until dry.
- 5.3 Wash hands with soap and water if visibly soiled, and/or when hands feel sticky (e.g. after 10-12 uses of alcohol degermer).

6.0 GENERAL PROCEDURE FOR SURGICAL SCRUB REQUIRING A BRUSH

- 6.1 Remove all jewelry from hands and forearms.
- 6.2 Prepare for the surgical scrub.
 - Adjust water temperature.
 - Keep arms level and well away from body. Keep hands up above the elbows for the duration of the scrub.
 - Remove brush from wrapper.
- 6.3 Prewash the hands and forearms.
 - Wet hands and forearms; apply sufficient water to sponge part of brush and work up a lather.
 - Wash from fingertips to the elbows.
 - Clean nails and subungual (under nails) areas with disposable nail cleaner under running water.
 - Discard nail cleaner in receptacle.

- Rinse hands and arms thoroughly.
- 6.4 Moisten brush and begin scrub. Apply 3-5 ml of antimicrobial soap if the brush does not contain the soap solution. Start at the fingertips and nails.
 - 6.5 Scrub all sides of each digit, including web spaces (a counted brush stroke method may also be used) between fingers.
 - 6.6 Scrub the palm and back of the hand using a circular motion.
 - 6.7 Repeat steps 6.5 and 6.6 for the second hand.
 - 6.8 Scrub the arm on all sides, up to and including the elbow and antecubital spaces.
 - 6.9 Scrub each lower forearm and upper arm.
 - 6.9 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.
 - 6.10 Add small amounts of water and/or soap to the brush during the scrub to develop and keep suds. Avoid splashing soap or water on scrub attire.
 - 6.11 Discard the brush in the waste basket after the scrub.
 - 6.12 Rinse hands and arms from the fingertips to above the elbow. Never rinse back and forth or rinse from elbows to fingers.
 - 6.13 Proceed to the operating room for gowning and gloving while holding arms upright, bent at the elbow.

7.0 GENERAL PROCEDURE FOR BRUSHLESS SURGICAL SCRUB

- 7.1 Prior to using brushless surgical scrub at the start of the day, wash hands with bland soap, and clean under nails with nail pick. No subsequent hand washes with soap and water are required unless there is visible soiling of hands.

Using brushless surgical scrub:

- 7.2 Cup hand and hold 1-2 inches from the nozzle of brushless scrub product dispenser. Depress foot pump completely to dispense one pump (approximately 2 ml) of product into the palm of one hand.
- 7.3 Dip the fingertips of the opposite hand into the 2 ml of brushless scrub product and work it under the nails. Spread the remaining product over the hand up to the elbow.
- 7.4 Dispense another metered dose pump (approximately 2 ml) of antiseptic solution into the palm of the other hand and work it under the nails. Spread the remaining product over the hand and up to the elbow.

- 7.5 Dispense a final metered dose pump (approximately 2 ml) of antiseptic solution into hand and reapply to all aspects of both hands up to the wrists.
- 7.6 Allow skin to dry before donning gloves.
- 7.7 Repeat process in between surgical procedures.

Reference: Boyce, JM, Pittet, P. "Guideline for Hand Hygiene in Health-Care Settings". Hand Hygiene Task Force Recommendations of the Healthcare Infection Control Practices Advisory Committee and the HICPAC/SHEA/APIC/IDSA Hand Hygiene Task Force. *MMWR Recommendations and Reports*. October 25, 2002 / 51(RR16); 1-44.

Patrick, P, Van Wicklin, SA "Implementing AORN Recommended Practices for Hand Hygiene. *AORN Journal*, April 2012, Vol. 95, No. 4.

Hand Antisepsis: Association of perioperative Registered Nurses.: Barugardner CA, Margos CS, Walz J, Larson E., Effects of nail polish in microbial growth of fingernails, *Dispelling sacred cows*. *AORN J* 1993, 58, 84-88