

**SOUTHERN ILLINOIS UNIVERSITY  
SCHOOL OF MEDICINE  
INFECTION CONTROL POLICY  
OCCUPATIONAL EXPOSURE CONTROL PLAN 101.10**

CATEGORY: PREVENTING TRANSMISSION OF  
PATHOGENIC MICROORGANISMS

REVIEWED: 2/17/04

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SUBJECT: HAND HYGIENE

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**DEFINITION:**

A general term that applies to hand washing, antiseptic hand wash, antiseptic hand rub or surgical hand antisepsis.

The major concern of any infection control program is the prevention of infection. Because many types of infections may be caused by organisms transmitted on the hands of healthcare personnel, **hand hygiene is generally considered the single most important procedure in preventing the spread of infection.** For this reason guidelines are being provided for the use of appropriate hand hygiene procedures.

**General Information:** This includes patient care and non-patient care areas.

1. Hands are washed when visibly soiled with either an antimicrobial soap or a regular soap and tepid water. (Hot water can irritate skin)
  2. An alcohol based hand sanitizer product (60-95% alcohol) can be utilized if hands are not visibly soiled. This kind of product is not appropriate for use when hands are visibly dirty or contaminated with proteinaceous materials.
- I. Non-patient Contact Areas (e.g. public rest rooms, break rooms, laboratories and/or other research areas, etc.)
- A. Hand-washing facilities including sinks with running water (hot and cold), waste receptacles, soap and disposable paper towel dispensers should be conveniently located for frequent use by all personnel.
  - B. A hand washing product that is generally acceptable to personnel is to be provided.
  - C. Hand washing is done after going to the bathroom, before eating, etc.
- II. Patient Care Areas
- A. Hand-washing facilities including sinks with running water (hot and cold), waste receptacles soap and disposable paper towel dispensers should be conveniently located for frequent use by personnel.
  - B. For routine patient contacts and procedures, cleaning of patient care equipment, and patient care procedures, a vigorous rubbing together of all surfaces of soap lathered hands for at least fifteen seconds, followed by rinsing under a stream of water is recommended, using a product which is generally acceptable to personnel. After drying hands thoroughly with a disposable paper towel,

discard the used paper towel in the waste receptacle and use a dry paper towel to turn off faucets and open exam room door.

***Rationale: Using a wet paper towel to turn off faucets and open exam room doors creates a “strike through” where bacteria on these surfaces can cross over the wet paper towel and re-contaminate clean hands.***

- C. In the absence of a true emergency, personnel must always wash their hands, even when gloves are used:
1. Before putting on gloves and after removing gloves.
  2. Before direct care of patients when the potential for contamination by blood/body fluids exists. This is mandated by OSHA.
  3. After contact with intact skin such as after taking blood pressure, lifting patients, taking temperatures, etc. This prevents cross-contamination from one site to another on the patient. (Patients carry microorganisms on their intact skin and may be colonized with infectious microbes)
  4. Before performing invasive procedures, such as urinary catheter placement or manipulations, peripheral intravenous line placement, etc.
  5. Before taking care of particularly susceptible patients, such as those who are severely immuno-compromised (HIV, transplant, chemotherapy, radiation patients, etc.) and newborns.
  6. Before and after touching wounds, whether surgical, traumatic, or associated with an invasive device.
  7. After situations during which microbial contamination of hands is likely to occur, especially those involving contact with mucous membranes, blood or body fluids, secretions, or excretions.
  8. After touching inanimate sources that are likely to be contaminated with virulent or epidemiologically important microorganisms. These sources include urinary measuring devices or secretion collection apparatus, and any inanimate objects in immediate vicinity of patient. (e.g. exam table, chairs, sink, desk tops, etc.)
  9. After taking care of an infected patient or one who is likely to be colonized with microorganisms of special clinical or epidemiological significance; i.e., multiply-resistant organisms.
  10. Between tasks and procedures in the same patient to prevent cross contamination of different body sites – such as changing a wound dressing and then placing a peripheral IV site.
  11. Between contacts with different patients.
  12. After gloves are removed.
- D. Healthcare worker’s fingernails
1. Healthcare workers working in patient care areas must not wear artificial fingernails or nail extenders.
  2. Healthcare workers working in patient care areas must keep natural nail tips at or less than 1/4 inch long.
  3. Nail polish should be intact. If chipped the nail polish should be removed.
  4. No current recommendation can be made regarding wearing rings in health-care settings. This is an unresolved issue at present.

### III. PROCEDURES FOR HAND HYGIENE

#### A. Hand washing procedure for soap and water:

1. When washing hands with soap and water, wet hands first with water (preferably warm water), apply an amount of product recommended by the manufacturer to hands, and rub hands together vigorously covering all surfaces of hands and fingers and around fingernails.
2. Rinse hands with water and dry thoroughly with a disposable towel. Dispose of wet paper towel in waste receptacle.
3. Use dry towel to turn off the faucets and to open exam room door or restroom door.
4. Avoid using hot water because repeated exposure to hot water may increase the risk of dermatitis.

#### B. Hand hygiene with alcohol based products for routine care

1. When decontaminating hands with an alcohol-based hand rub, apply product to palm of one hand and rub hands together, covering all surfaces of hands and fingers until hands are dry.
2. Follow the manufacturer's recommendations regarding the volume of product to use.
3. Store supplies of alcohol-based hand rubs in cabinets or areas approved for flammable materials.

**Hands contaminated with spores such as bacillus anthracis (anthrax) should be washed with soap and water, because alcohol based products as well as other antiseptics have poor activity against spores.**

### IV. Antiseptics

- A. Antiseptics used in the clinics and research areas/laboratories must be approved by the Infection Control and Safety Committee.
- B. All hand soaps have antimicrobial activity.
- C. Antiseptics are used to decontaminate the skin and other superficial tissues. They do not sterilize the skin but they can reduce microbial contamination depending on the amount and type of contamination, the antiseptic agent used, the length of exposure to the agent, the presence of residual activity and the technique used.
- D. Alcohol based antiseptics, hand sanitizers that do not require water to use (e.g. foams, gels, and rinses) are adjuncts for either hand washing or the surgical scrub. However, these products may be used in the following instances:
  1. As a supplement to the surgical scrub (applied after the first routine scrub for identified procedures).
  2. In the event that there is no soap and running warm water

- available.
3. De-germing of hands after gloves are removed in the procedure/patient exam room cleaning process.
  4. Hands must be visibly free of soil/debris.
  5. Hands must be washed with soap and running warm water after the alcohol based hand sanitizer/antiseptic is used two or three consecutive times, (based on manufacturers' guidelines for their respective products).
- E. Antiseptics approved by the Infection Control and Safety Committee for hand scrubs are:
1. Alcohol
  2. Alcohol gels or foams (at least 60-95% alcohol)
  3. 4% chlorhexidine gluconate
  4. Hexachlorophene
  5. Iodine/Iodophors
  6. Para-chloro-meta-xylene (PCMX)
  7. Triclosan (or Irgasan DP-300)

References:

1. Centers for Disease Control, "Guidelines for Hand washing". Website: [www.cdc.gov](http://www.cdc.gov)
2. APIC Guidelines for Infection Control Practice, "Guideline for Use of Topical Antimicrobial Agents", Larson, Ed, 1988. Website: [www.apic.org](http://www.apic.org)
3. APIC Guideline for Hand Hygiene in Health-Care Settings, "Recommendations Of the Healthcare Infection Control Practices Advisory Committee and the HICPAC/SHEA/APIC/IDSA Hand Hygiene Task Force",.

