



## Hand Hygiene Fact Sheet for Health Care Settings

**In health care settings, hand hygiene is the single most important way to prevent infections.**

Hand hygiene is a core element of patient safety for the prevention of health care-associated infections and the spread of antimicrobial resistance. There are two methods of performing hand hygiene:

### **Hand Hygiene Agents:**

#### **1. Alcohol-Based Hand Rub (ABHR)**

Alcohol-based hand rub is the preferred method for decontaminating hands. Using ABHR is better than washing hands (even with an antibacterial soap) when hands are not visibly soiled:

- ABHRs provide for a rapid kill of most transient microorganisms
- 70 to 90% is preferred for health care settings
- ABHRs are not to be used with water
- ABHRs contain emollients to reduce hand irritation
- ABHRs are less time-consuming than washing with soap and water
- If running water is not available, use moistened towelettes to remove the visible soil, followed by ABHR

#### **2. Hand Washing**

Hand washing with liquid or foam soap and running water must be performed when hands are visibly soiled. Antimicrobial soap may be considered for use in critical care areas but is not required and not recommended in other care areas. Bar soaps are not acceptable in health care settings except for individual patient personal use.

### ***Your 4 Moments for Hand Hygiene***

#### **1. Before initial patient or environment contact.**

Clean your hands when entering:

- before touching patient or
- before touching any object or furniture in the patient's environment.

To protect the patient and their environment from harmful germs carried on your hands.

#### **2. Before aseptic procedure**

Clean your hands immediately before any aseptic procedure. To protect the patient from harmful germs, including his/her own germs, entering his or her body.

#### **3. After body fluid exposure risk**

Clean your hands immediately after an exposure risk to body fluids (and after glove removal). To protect yourself and the health care environment from harmful patient germs.

#### **4. After patient or environment contact**

Clean your hands when leaving:

- after touching client/patient/resident or
- after touching any object or furniture in the patient environment.

To protect yourself and the health care environment from harmful patient germs.

### ***Factors that reduce the effectiveness of Hand Hygiene***

The following factors influence the effectiveness of hand hygiene:

- Condition of the skin: intact skin vs. presence of dermatitis, cracks, cuts or abrasions
- Nails: natural nails more than 3-4 mm (1/4-inch) long are difficult to clean, can pierce gloves and harbour more microorganisms than short nails
- Nail polish: Only nail polish that is fresh and free of cracks for chips is acceptable
- Artificial nails or nail enhancements: are not to be worn by those giving patient care as they have been implicated in the transfer of microorganisms
- Jewellery: rings and bracelets hinder hand hygiene, and should not be worn for patient contact; rings increase the number of microorganisms present on hands and increase the risk of tears in gloves
- Products: must be dispensed in a disposable pump container that is discarded when empty (Note: never top – up containers as this could cause contamination of the contents)

### ***Techniques***

#### Alcohol-based Hand Rub:

- Remove hand and arm jewellery. Jewellery is very hard to clean, and hides bacteria and viruses from the antiseptic action of the alcohol.
- Ensure hands are visibly clean (if soiled, follow hand washing steps).
- Apply between 1 to 2 full pumps of product, or squirt a loonie-sized amount, onto one palm.
- Spread product over all surfaces of hands, concentrating on finger tips, between fingers, back of hands, and base of thumbs. These are the most commonly missed areas.
- Rub hands until product is dry. This will take a minimum of 15 to 20 seconds if sufficient product is used.

#### Hand Washing:

- Remove hand and arm jewellery. Jewellery is very hard to clean, and hides bacteria and viruses from the mechanical action of the washing.
- Wet hands with warm (not hot) water. Hot water is hard on the skin, and will lead to dryness.
- Apply liquid or foam soap. Do not use bar soap in health care settings as it may harbour bacteria that can then be spread to other users.
- Vigorously lather all surfaces of hands for a minimum of 15 seconds. Removal of transient or acquired bacteria requires a minimum of 15 seconds mechanical action. Pay particular attention to finger tips, between fingers, backs of hands and base of the thumbs. These are the most commonly missed areas.
- Using a rubbing motion, thoroughly rinse soap from hands. Residual soap can lead to dryness and cracking of skin.
- Dry hands thoroughly by blotting hands gently with a paper towel. Rubbing vigorously with paper towels can damage the skin.
- Turn off taps with paper towel, to avoid recontamination of your hands (NOTE: If hand air dryers are used, hands-free taps are necessary).

### ***Other Issues***

- Intact skin is the first line of defense, therefore careful attention to skin care is an essential part of the hand hygiene program. If integrity of skin is an issue, staff should contact the Occupational Health nurse for an assessment.
- Use only hospital approved skin lotion that does not interfere with glove integrity.
- Hands must be fully dry before touching the patient or patient's environment/equipment for the hand rub to be effective and to eliminate the extremely rare risk of flammability in the presence of an oxygen-enriched environment

**Patient Centred Care:**

As patients continue to have an increased awareness about hand hygiene, it is important for staff to be a good role model. When possible, staff, physicians and volunteers should perform hand hygiene in view of the patient, as it is reassuring to see that their health care provider has cleaned their hands.

For more information contact the Infection Prevention and Control Department at:  
(705) 324-6111 Ext 4508 or 4527

**Reference:**

1. Best Practices for Hand Hygiene in All Health Care Settings, 4th edition April 2014  
APPENDIX C: PIDAC'S HAND HYGIENE FACT SHEET FOR HEALTH CARE SETTINGS  
<http://www.publichealthontario.ca/en/eRepository/2010-12%20BP%20Hand%20Hygiene.pdf>