

# North York General Hospital Policy Manual

HAND HYGIENE

NUMBER: IP-III-10

CROSS REFERENCE:

ORIGINATOR: Medical Director, IPAC  
APPROVED BY: Operations Committee

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## **POLICY:**

Hand hygiene will be performed correctly and at appropriate times in order to decrease the likelihood that infections will be spread.

Hospital- acquired infections are recognized as a serious problem affecting the quality of patient care in healthcare settings. These infections are spread mainly by cross-contamination and transmission of microorganisms by the hands of health care workers.

Hand hygiene is the easiest and most effective measure for preventing hospital acquired infections. Effective hand hygiene leads to a reduction in the transmission of pathogenic microorganisms to patients, residents, visitors and staff in the healthcare setting.

North York General Hospital promotes hand hygiene by providing education; conducting audits of healthcare worker hand hygiene practice and ensuring staff has access to quality products.

## **PROCEDURE:**

### **A. TYPES OF MICROORGANISMS FOUND ON THE SKIN:**

1. Resident flora
  - Organisms that normally reside on skin
  - Pathogenic potential is relatively low (unless introduced into body tissues by trauma or medical devices such as intravenous catheters)
2. Transient flora
  - Cause most hospital infections resulting from cross- transmission
  - *Are easily removed by hand hygiene*

### **B. DEFINITIONS**

Hand Hygiene

- A general term that includes hand washing, alcohol based hand-rub, antiseptic hand rub, or surgical hand antisepsis.

Hand washing

- Washing hands with plain (i.e., non-antimicrobial) soap and water

Hand Antisepsis

- Washing hands with antiseptic soap (i.e., antimicrobial) or cleaning hands with antiseptic hand rub (i.e., alcohol based).

### **A. INDICATIONS FOR HAND HYGIENE AND HAND ANTISEPSIS**

In the absence of a true emergency, staff should *always* perform hand hygiene as per Public Health Ontario's 'Just Clean Your Hands' program. Your 4 Moments for Hand Hygiene are:

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1. BEFORE initial patient/patient environment contact
2. BEFORE aseptic procedures
3. AFTER body fluid exposure risk
4. AFTER patient/environment contact

In addition to the above general criteria, other specific examples of when to perform hand hygiene include:

Before:

- Donning sterile gloves
- Moving to a clean body-site from a contaminated body-site during patient care
- Preparing, handling, or serving food

After:

- Hands become visibly soiled
- Removing gloves
- Performing personal body functions, e.g., using the toilet or blowing your nose.

## B. FINGERNAILS AND ARTIFICIAL NAILS

Rationale:

- Long nails and artificial nails have been implicated in several outbreaks of infection in different healthcare settings.
- The presence of jewelry on the hand impacts the effectiveness of hand hygiene. The skin underneath jewelry is more heavily colonized compared with other areas of skin without jewelry.

Policy:

- Health care workers providing direct patient care must not wear artificial nails or nail enhancements/extensions.
- Natural nail length for health care workers providing direct patient care is limited to a ¼ of an inch.
- Hand/arm jewelry is not to be worn when providing patient care.
- Nail polish, if worn, must not be chipped.

## C. HAND HYGIENE TECHNIQUES

1. Hand washing with plain or antimicrobial soap:

Note: This method must be used if:

- Hands are visibly soiled or contaminated with proteinaceous material
- Patient has Norovirus (viral gastroenteritis) or *C. difficile*

Technique:

- Wet hands with warm water
- Apply one pump of hospital approved hand soap to palms
- Rub hands including wrists together vigorously for 15 seconds covering all surfaces of the hands and fingers
- Rinse hands with warm water and pat dry thoroughly with a disposable towel
- Use towel to turn off the faucet

2. Cleaning hands with alcohol- based hand rub:

Note: This method can only be used if hands are not visibly soiled

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Technique:

- Apply product to palm of one hand (follow the manufacturer's recommendations on the volume of product to use)
- Rub hands together covering all surfaces of hands and fingers until hands are dry
- Hands should dry in 15 to 25 seconds

*NOTE: this method can only be used if hands are not visibly soiled*

## D. HAND CARE

### 1. Condition of the hands

Intact skin is the body's first line of defence against bacteria; therefore careful attention to hand care is an essential part of the hand hygiene program. The presence of dermatitis, cracks, cuts or abrasions can trap bacteria and compromise hand hygiene. Dermatitis also increases shedding of skin squames and, therefore, shedding of bacteria. A common barrier to compliance with hand hygiene is the adverse effects of products on the skin.

Occupational hand dermatitis is mostly caused by hand washing and work where skin is occluded by wearing gloves. ABHRs have been shown to be less irritating to skin than soap and water.

### 2. Hand Care Program

General hand care instructions include:

- At work, use an Alcohol-Based Hand Rub (AHRB) for hand hygiene when hands are not visibly soiled.
- When washing hands, use lukewarm water and unscented irritant-free soap or hand cleanser.
- Remove rings when cleaning hands as cleaning product can be caught under rings, which can cause dermatitis to flare.
- Rinse hands thoroughly and pat hands dry.
- Protective gloves should be intact and clean and dry inside. Hands must be clean and dry when donning gloves.
- Apply fragrance-free, non-irritating moisturizing cream dispensed in a bottle to hands frequently.
  - It is important to use hand lotion/cream frequently during your work and at home to protect your hands from irritation caused by any of the factors listed above. The lotion must be compatible with the gloves, hand rub and hand washing soap used. Products are to be dispensed correctly to prevent contamination.
- Avoid skin contact with detergents, strong cleaning agents, shampoos, various waxes and polishes, solvents and thinners.
- Continue hand protection at home for all gardening, cooking, cleaning, bathing and childcare duties.
- Protect your hands from the dry cold. Wear mitts or gloves at all times when in the cold. Even one minute of unprotected cold exposure may dry out hands. Be sure to wear gloves/mitts when handling a cold steering wheel.
- Avoid irritants and allergens.

**NOTE: Staff with non-intact skin should contact the Occupational Health Department.**

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Please see Appendix 1 for a Hand Hygiene Fact Sheet.

**REFERENCES:** (Note: If link does not work, please copy and paste website onto your browser)

1. Best Practices for Hand Hygiene in all Healthcare Settings, 4th Edition. Provincial Infectious Diseases Advisory Committee. Public Health Ontario. April 2014. Available at: <http://www.publichealthontario.ca/en/eRepository/2010-12%20BP%20Hand%20Hygiene.pdf>
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6. Just Clean Your Hands Hand Care Program. Available at: <http://www.publichealthontario.ca/en/eRepository/hand-care-program.pdf>
7. Public Health Ontario's 'Just Clean Your Hands' Hand Hygiene Program. Available at: [http://www.publichealthontario.ca/en/BrowseByTopic/InfectiousDiseases/JustCleanYourHands/Pages/Just-Clean-Your-Hands.aspx?\\_ga=1.50203937.682050403.1417035598](http://www.publichealthontario.ca/en/BrowseByTopic/InfectiousDiseases/JustCleanYourHands/Pages/Just-Clean-Your-Hands.aspx?_ga=1.50203937.682050403.1417035598).

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## 8. Appendix

**Fact Sheet**  
**Feuille de renseignements**  
**PIDAC** Provincial Infectious Diseases Advisory Committee  
**CCPMI** Comité consultatif provincial des maladies infectieuses



## 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 the responsibility of all individuals involved in health care.** Hand hygiene refers to removing or killing microorganisms on the hands as well as maintaining good skin integrity. There are two methods of removing/killing microorganisms on hands: washing with soap and running water or using an alcohol-based hand rub. Generally, the focus is on microorganisms that have been picked up by contact with patients/health care provider, contaminated equipment, or the environment (transient or contaminating bacteria).

Effective hand hygiene kills or removes microorganisms on the skin and maintains hand health.

### ALCOHOL-BASED HAND RUB

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

However, hand washing with soap and running water must be performed when hands are visibly soiled. If running water is not available, use moistened towelettes to remove the visible soil, followed by alcohol-based hand rub.

### HAND WASHING

Most transient bacteria present on the hands are removed during the mechanical action of washing, rinsing and drying hands. Hand washing with soap and running water must be performed when hands are visibly soiled.

### WHEN SHOULD HAND HYGIENE BE PERFORMED?

Hand hygiene must be performed:

- Before and after contact with a patient
- Before performing invasive procedures
- Before preparing, handling, serving or eating food
- After care involving the body fluids of a patient ( e.g. assisting patient to blow nose, toileting the patient or doing wound care) and before moving to another activity
- Before putting on and after taking off gloves
- After personal body functions, such as using the toilet or blowing one's nose
- Whenever a health care provider is in doubt about the necessity for doing so.
- When hands accidentally come into contact with secretions, excretions, blood and body fluids (hands must be washed with soap and running water)
- After contact with items in the patient's environment

### FACTORS THAT INFLUENCE 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
- Only nail polish in good condition 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

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## Appendix 1 cont.

### Fact Sheet

#### Feuille de renseignements

**PIDAC** Provincial Infectious Diseases Advisory Committee

**CCPMI** Comité consultatif provincial des maladies infectieuses



#### HAND HYGIENE AGENTS

##### Alcohol-based hand rubs:

- are recommended to routinely decontaminate hands in clinical situations when hands are not visibly soiled
- provide for a rapid kill of most transient microorganisms
- contain a variety of alcohols in concentrations from 60 – 90%
- are not used with water
- contain emollients to reduce skin irritation
- are less time consuming than washing with soap and water

##### Liquid or Foam Soap:

- Soap must be dispensed in a disposable pump dispenser
- Soap containers are not to be topped up, as there is a risk of contamination
- Bar soaps are not acceptable in health care settings except for individual client/patient/resident personal use.
- Antibacterial soaps may be used in critical care areas such as ICU, or in other areas where invasive procedures are performed.

#### 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<sup>\*</sup>. 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 defence, therefore careful attention to skin care is an essential part of the hand hygiene program.
  - A hand hygiene skin care program should be in place. Choice of products should also be "user-friendly."
  - If integrity of skin is an issue, the individual should be referred to Occupational Health for assessment.
- Use a skin lotion that does not interfere with glove integrity
- Note: It is reassuring to the patient to see that the health care provider performs hand hygiene, as patients have an increased awareness of the importance of hand hygiene.

<sup>\*</sup> 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.