

Infection Prevention and Control Services Policy

TITLE:	Hand Hygiene	NUMBER:	IC 205.2
Sponsor:	Infection Prevention and Control Services	Page:	1 of 14
Approved by:	Medical Advisory Committee	Approval Date:	January 17 th , 2017
		Effective Date:	January 19 th , 2017
Applies To:	IWK Staff, including physicians, learners and volunteers		

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POLICY STATEMENTS

1. All staff, physicians and volunteers must perform hand hygiene (HH) as outlined in this policy. Staff at all levels of the IWK are responsible and accountable for effective HH.
2. Hand hygiene will be performed using a hospital-approved alcohol-based hand rub (ABHR) or antimicrobial soap and water.

GUIDING PRINCIPLES AND VALUES

Hand hygiene is the single most effective method of preventing healthcare-acquired infections (HAIs) by decreasing the number of disease-causing organisms on the surface of the hands. Hand hygiene is a general term referring to any action of hand cleaning and refers to:

- the removal of visible soil
- the removal or killing of transient microorganisms from the hands

All hands have resident microbial flora that pose very little risk to the patient and healthcare provider (HCP). Cleaning your hands reduces the spread of potentially deadly germs acquired transiently on the hands to patients and reduces the risk of HCP colonization or infection caused by germs acquired from the patient, the patient environment, or contaminated medical equipment. The hands of HCPs are the most common vehicle for the transmission of microorganisms from:

- patient-to-patient
- patient to equipment and the environment
- the environment to the patient

Hand Hygiene means cleaning your hands by using either handwashing (washing hands with soap and water), antiseptic hand wash, antiseptic hand rub (i.e. alcohol-based hand sanitizer, including foam or gel), or surgical hand antisepsis.

Please note: This policy does not specifically address surgical hand antisepsis. Please follow the standards and practices specific to the Children’s or Women’s Health Operating Rooms for surgical hand antisepsis.

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PROCEDURE

“4 Moments for Hand Hygiene” (please refer to Appendix A.)

1. **Before Patient/Patient Environment Contact:** As you approach the patient environment, clean your hands before touching the patient or his/her immediate surroundings.
2. **Before an Aseptic Procedure:** Clean your hands immediately before touching the patient for any aseptic task.
3. **After Body Fluid Exposure:** Clean your hands immediately after an exposure to bodily fluids, even when gloves are worn (e.g. following wound care or diaper changes, after emptying a urinary drainage bag, or following tracheal or oral suctioning).
4. **After Patient/Patient Environment Contact:** Clean your hands after touching a patient and as you exit the patient’s environment.

Other Important Moments to Perform Hand Hygiene

1. There are other important moments in which HH should be performed outside of direct patient care. Other important moments to perform HH are:
 - Before eating
 - After using the washroom
 - After coughing, sneezing or blowing one’s nose
 - When hands are visibly soiled or feel dirty
 - Before preparation and administration of patient medication
 - Before preparation, initiation, or discontinuation of patient enteral nutrition
 - After procedures/situations in which hands are likely to be contaminated such as cleaning spills, after cleaning equipment, patient care instruments or toys
 - Before contact with nose, eyes or mouth
 - Before preparing, handling, serving or eating food*

**Note: If you work in Food Services or a franchise within the Health Centre that serves food, please follow the standards and practices specific to that setting and as outlined in Food Safety training.*

Hand Hygiene using Alcohol Based Hand Rub (ABHR)

1. ABHR is the preferred method for hand hygiene.
2. There are exceptions to using ABHR in which soap and water is recommended as the first choice for HH. In the following situations, HH using soap and water would be recommended:

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- When hands are visibly soiled: Alcohol is an antiseptic and may not be effective in the presence of material such as blood, feces or other body fluids.
 - When patients are experiencing diarrheal infections, particularly spore-forming microorganisms such as C. difficile: Physical removal of spores by hand washing with soap and water is preferred when caring for a patient with an actual or suspected diarrheal infection, particularly spore forming microorganisms such as *C. difficile* ('*C. diff.*') In this situation, HH using soap and water must always be used as the first choice for hand hygiene. When a designated hand washing sink is not immediately available, HCPs must use ABHR upon glove removal and then proceed to the nearest hand hygiene sink for HH using soap and water.
3. When used correctly, ABHR is highly effective, convenient and less damaging to the skin than soap and water.
 4. ABHR should be located at the point-of-care and have a minimum concentration of 70% alcohol.
 5. To clean the hands with ABHR:
 - a. Ensure hands are visibly clean and dry.
 - b. Apply ABHR onto hands and rub hands together to cover all areas. Pay particular attention to commonly missed areas such as the finger tips, between fingers, backs of hands, wrists and the base of the thumbs.
 - c. Rub hands until dry (20-30 seconds.)

Refer to Appendix C: How to Hand Rub

Hand Hygiene using Soap and Water

1. Bar soaps are not acceptable in healthcare for HH using soap and water.
2. To perform HH using soap and water:
 - a. Wet hands using warm running water.
 - b. Add liquid soap and rub hands together, lathering all surfaces of the hands for at least 15 seconds. Pay particular attention to commonly missed areas of the hands such as the finger tips, between fingers, the backs of the hands, wrists and the base of the thumbs.
 - c. Rinse hands well under warm running water.
 - d. Pat hands dry with a paper towel.
 - e. Turn off the taps using paper towel to avoid recontamination of the hands.
 - f. Duration of the entire procedure: 40-60 seconds (i.e. the time it takes to sing "Happy Birthday" twice.)

Refer to Appendix D: How to Hand Wash

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Jewelry, Nails and Nail Enhancements

1. Jewelry such as rings or bracelets, particularly those with grooves and/or stones, can harbor microorganisms even after hand hygiene has been performed and may tear gloves. It is not recommended to wear jewelry during direct patient care, cleaning of medical equipment or cleaning of the environment. Smooth wedding bands tend to be easier to clean during hand hygiene and may be acceptable depending on the care environment and the tasks being performed.
2. If watches are present, remove or push up watches above the wrist during HH.
3. Natural fingernails are to be kept clean and should be trimmed to less than ¼ inch in length to prevent microbial reservoirs.
4. Artificial nails and nail enhancements (e.g. tips, jewelry, stickers, overlays, & wraps) are not to be worn by staff who have direct or indirect contact with patients and/or patient care equipment and patient care supplies in healthcare settings. Nail enhancements have been associated with increased transfer of microorganisms and glove tears. It has also been shown that acrylic nails harbor more microorganisms and are more difficult to clean than natural nails, are associated with poor hand hygiene practices, and result in more tears to gloves.
5. Nail polish, if worn, must be freshly applied and free of chips, cracks and peeling.

Hand Hygiene and Glove Use

1. Gloves are not a substitute for hand hygiene, and hand hygiene is not a substitute for gloves.
2. When using gloves, HH must be performed:
 - Before donning gloves
 - Immediately after gloves are removed
3. Gloves are to be worn as per the Routine Practices and Additional Precautions policies.

Hand Hygiene for Patients and Families

1. Healthcare providers must encourage patients and families to perform hand hygiene.
2. Patients and families should be encouraged to perform HH:
 - Before eating
 - Before taking medications
 - After toileting or changing diapers
 - Before leaving the patient's room/environment

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3. Healthcare providers should document HH education/teaching with patients and their families in the patient record.
 - E.g.: Education was provided by healthcare staff on the importance of hand hygiene and the use of soap and water to the family of a patient experiencing a colonization with MRSA. The patient & family pamphlets 'Hand Hygiene' and 'MRSA' were provided to the patient and family along with the education from healthcare staff.

Hand Hygiene and Maintaining Hand Health

1. Health centre-approved lotion should be used to reduce irritant contact dermatitis from frequent hand hygiene. Good hand care is important to prevent dry, cracked skin.
2. Healthcare providers who have medical conditions which impact their skin integrity (e.g. eczema, psoriasis, dermatitis, allergies, open wounds), or the ability to perform HH effectively (e.g. casts, splints on the hands, bandages covering wounds) must notify their department manager and contact Occupational Health, Safety & Wellness (OHS&W) for further direction.
3. It is important to pat your hands dry with paper towel when using soap and water for HH and avoid rubbing to prevent drying/abrasion of the skin through repeated hand hygiene using soap and water.

Important Other Considerations for Hand Hygiene

1. If long sleeves are worn, they should be pushed up before performing hand hygiene.
2. Liquid soap and ABHR containers must not be "topped up".

REFERENCES

Legislative Acts/References

Accreditation Canada (2016). Infection Prevention and Control Standards, ver. 11. Gloucester, ON: Accreditation Canada.

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Canadian Patient Safety Institute (2016). Canada's Hand Hygiene Challenge. Available at: <http://www.patientsafetyinstitute.ca/en/About/Programs/HH/Pages/default.aspx>

Centers for Disease Control (CDC). Hand Hygiene in Healthcare Settings. Available at: <https://www.cdc.gov/handhygiene/>

Infection Prevention and Control Canada (2016). Information about Hand Hygiene. Available at: www.ipac-canada.org/links_handhygiene.php

Nova Scotia Patient Safety Act (2012). Available at: http://nslegislature.ca/legc/bills/61st_4th/1st_read/b074.htm

Provincial Infectious Disease Advisory Committee (PIDAC) (2014). Best Practices for Hand Hygiene in All Health Care Settings, 4th Edition. Ontario Public Health: Queen's printer for Ontario. Available at: www.publichealthontario.ca/en/eRepository/2010-12%20BP%20Hand%20Hygiene.pdf

World Health Organization (2009). WHO Guidelines on Hand Hygiene in Health Care: First Global Patient Safety Challenge Clean Care Is Safer Care. Geneva: World Health Organization. Available at: <http://www.who.int/gpsc/en/>

RELATED DOCUMENTS

IWK Policies:

Infection Prevention and Control Policy # 201.1 - *Application of Routine Practices*

NSHA Policies

Infection Prevention and Control Policy # IPC-RP-020 – *Hand Hygiene*

Brochures

Patient & Family Education Pamphlet, *Clostridium difficile: Information for Patients & Families*, PL# 0879, 08/2016

Patient & Family Education Pamphlet, *Hand Hygiene: A Guide for Patients, Families and Visitors*, PL# 0880, 08/2016

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Other:

Nova Scotia Department of Health and Wellness: Hand Hygiene. How often are healthcare workers cleaning their hands? Available at: <http://novascotia.ca/dhw/hsq/public-reporting/hand-hygiene-data-trending.asp>

The following are mandatory yearly learning packages related to Routine Practices such as Hand Hygiene.

- **Routine Practices Level I Learning Package and Self Test.** Staff who complete this yearly mandatory learning package are not involved in direct hands-on patient care.
- **Routine Practices Level II Learning Package and Self Test.** Staff who are required to complete this yearly mandatory learning package are involved in the direct, hands-on care of patients and families. This self-test also applies to staff who may not have involvement with direct hands-on care, but who will likely come into contact with blood or other bodily fluids of patients during the routine course of their workday.

Appendices

Appendix A: Definitions

Appendix B: The 4 Moments for Hand Hygiene

Appendix C: How to Hand Rub

Appendix D: How to Hand Wash

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Appendix A: Definitions

Alcohol-based hand rub (ABHR): A liquid, gel or foam formulation containing 60-90% alcohol (e.g. ethanol, isopropanol) which is used to reduce the number of microorganisms on hands in clinical situations when the hands are not visibly soiled. Most ABHRs contain emollients to reduce skin irritation and are less time-consuming to use than washing with soap and water.

Aseptic procedure: A set of specific practices and carefully controlled conditions during a performed procedure with the goal of minimizing contamination by pathogens. E.g. administering IV medication, wound care, accessing central venous devices or initiating tube feeds.

Hand hygiene (HH): A general term referring to any action of hand cleaning by removing or killing microorganisms on the hands as well as maintaining good skin integrity. Frequent and appropriate hand hygiene is the most important way of preventing the spread of healthcare-associated infections.

Healthcare-associated Infection (HAI): Infections occurring in a patient during the course of receiving treatment for other conditions within a healthcare setting which was not present or incubating at the time of admission.

Health care provider (HCP): Any person delivering care to a patient where the hands of the HCP touch the patient, the patient's body fluids, or objects or objects or surfaces located in the patient environment. HCP includes but is not limited to nurses, physicians, and allied health and support services workers such as transport and housekeeping associates.

Healthcare environment: refers to those areas outside the patient environment such as hallways, shared nursing stations, storage areas, treatment rooms and washrooms, etc.

Health care setting: Any location where health care is provided, including hospitals, ambulatory care, rehabilitative care, long-term care, mental health facilities, community health centres, home healthcare, clinics and physician offices.

Patient Environment: The immediate space around a patient that may be touched by a patient and may also be touched by the HCP when providing care. The patient environment includes equipment, medical devices, furniture, telephone, curtains, and personal belongings. In a single patient room everything inside the walls of the patient's room is considered part of the patient environment (e.g. light switches, door knobs, sinks). In multi-bed rooms or open bay care settings the patient environment includes the patient's immediate surroundings including all surfaces, equipment and supplies or objects associated with the patient.

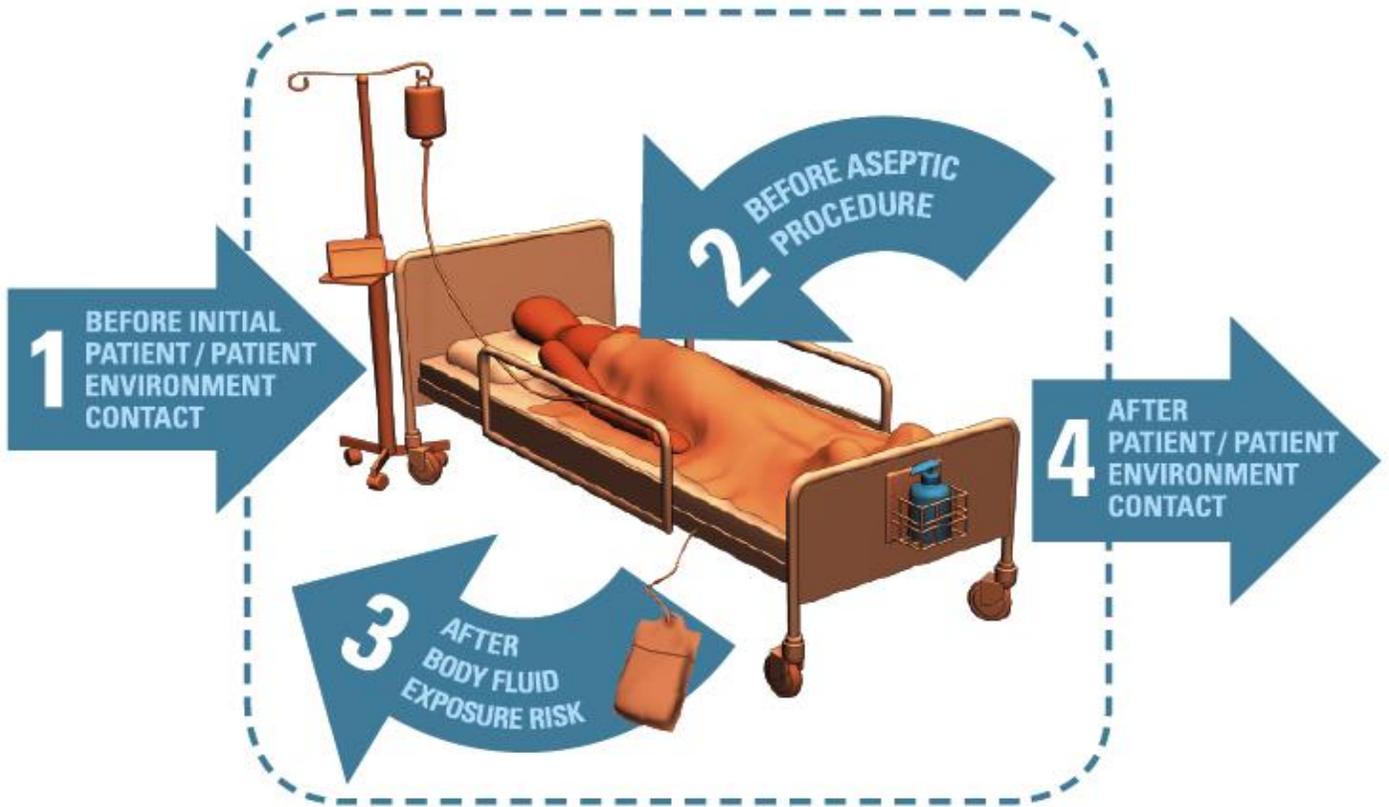
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Point of Care: Refers to the place where three elements occur together: the patient, the health care provider and the contact/care that is occurring.

Resident Flora: Bacteria that normally reside on the skin and are attached to the deeper layers of the skin. These bacteria are not easily removed by mechanical means, e.g. hand washing, and rarely contribute to healthcare- associated infections.

Transient Flora: Bacteria that is picked up and carried on the skin, but does not permanently live on the skin. Transient flora is implicated as causing most healthcare-associated infections and is easily removed by proper hand hygiene practices.

Appendix B: The 4 Moments for Hand Hygiene



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Appendix C: How to Hand Rub

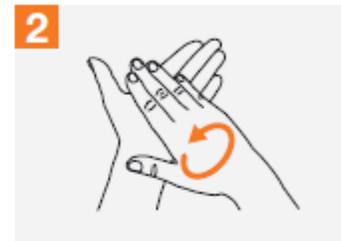
How to Handrub?

RUB HANDS FOR HAND HYGIENE! WASH HANDS WHEN VISIBLY SOILED

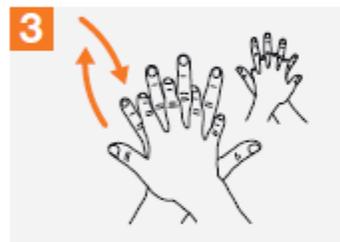
 Duration of the entire procedure: 20-30 seconds



1a Apply a palmful of the product in a cupped hand, covering all surfaces;



2 Rub hands palm to palm;



3 Right palm over left dorsum with interlaced fingers and vice versa;



4 Palm to palm with fingers interlaced;



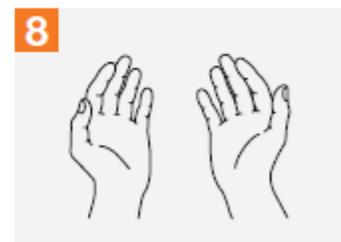
5 Backs of fingers to opposing palms with fingers interlocked;



6 Rotational rubbing of left thumb clasped in right palm and vice versa;



7 Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;



8 Once dry, your hands are safe.



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WHO acknowledges the Hspital Universitaria de Ginebra (HUG), in particular the members of the Infection Control Programme, for their active participation in developing this material.

May 2000

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Appendix D: How to Hand Wash

How to Handwash?

WASH HANDS WHEN VISIBLY SOILED! OTHERWISE, USE HANDRUB

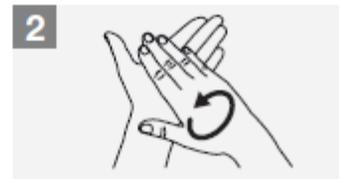
 Duration of the entire procedure: 40-60 seconds



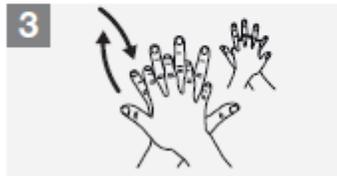
0 Wet hands with water;



1 Apply enough soap to cover all hand surfaces;



2 Rub hands palm to palm;



3 Right palm over left dorsum with interlaced fingers and vice versa;



4 Palm to palm with fingers interlaced;



5 Backs of fingers to opposing palms with fingers interlocked;



6 Rotational rubbing of left thumb clasped in right palm and vice versa;



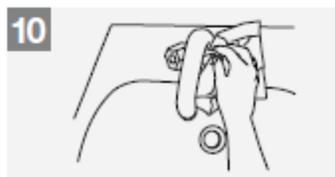
7 Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;



8 Rinse hands with water;



9 Dry hands thoroughly with a single use towel;



10 Use towel to turn off faucet;



11 Your hands are now safe.



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May 2009

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District Health Authority/IWK Policies Being Replaced

IC 205.2 *Hand Hygiene Policy* (March, 2011)

Version History

(To Be Completed by the Policy Office)

Major Revisions (e.g. Standard 4 year review)	Minor Revisions (e.g. spelling correction, wording changes, etc.)
January, 2017	

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