# 2023-2024 Infection Prevention & Control



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### **BACKGROUND**

Hand hygiene is the single most important strategy to reduce the transmission of disease-causing organisms and is a core element of patient safety to prevent healthcare associated infections. It relates to the removal of visible soil and removal or killing of transient microorganisms from the hands while maintaining good skin integrity. Proper hand hygiene will protect patients and providers and will reduce the spread of infections as well as the costs associated with treating infections. It is reassuring to the patient to see staff perform hand hygiene, as today's patients have an increased knowledge of the importance of hand hygiene, therefore ensuring patient confidence is another reason to clean hands at the point-of-care.

### **PURPOSE**

To reduce transmission of infectious diseases by the proper observance of hand hygiene technique.

# **POLICY**

All staff are required to perform hand hygiene using the correct method and technique at appropriate times.

# **PROCEDURES**

- Hand washing shall be performed in a dedicated sink that is not used for drinking or dental procedures including rinsing of patient care equipment, oral rinses, or running lines.
- Hand hygiene educational reviews should be provided annually for all staff, with sign off by each person indicating their understanding and adherence to the information.
- Hand hygiene audits should be conducted on a regular basis and results shared and reviewed with staff.

# THE FOUR MOMENTS FOR HAND HYGIENE IN HEALTHCARE

These moments are focused on direct care moments to protect patients, office personnel, and healthcare providers. It should be noted that while these are the main focus of hand hygiene, they are not exhaustive.

- Before initial patient/patient environment contact
- Before aseptic procedure
- After blood or body fluid exposure risk
- After patient/patient environment contact

Refer to Appendix D for the moments of hand hygiene in healthcare settings as outlined by the Ontario Ministry of Health and Long-Term Care.





#### GENERAL INDICATIONS FOR HAND HYGIENE

- Upon entering and immediately before leaving The Dental Office.
- Upon entering and before leaving a patient care space or operatory.
- Before preparing, handling, or administering medications.
- Before moving from dirty to clean tasks in the reprocessing area.
- After performing personal functions (i.e. going to the toilet or blowing nose).
- Before and after eating, drinking, or applying personal products.
- Before putting on and after removing any Personal Protective Equipment (gloves, gown, mask, eye protection, etc).
- After handling equipment, supplies, or linen contaminated with body substances.
- Before handling sterile or clean supplies.

When in doubt, perform hand hygiene. It only takes a few seconds and could save someone from infection.

#### LOCATION AND USE OF HAND HYGIENE CENTRES

- Sinks should be placed as close as possible to all dental care areas and should be in clear sight of the patient for reassurance that hand hygiene has taken place.
- Soap dispensers must be placed at every hand hygiene sink.
- Sink taps should be hands-free when possible, otherwise they should be turned off using a paper towel to avoid recontamination of the hands.
- Equipment should be kept away from the sink to avoid splash contamination.
- Hand hygiene facilities must be in the medication preparatory area, which is separate from areas that may potentially be contaminated with blood and body fluid.
- Alcohol-based hand rub dispensers should be placed at point of care locations, in reprocessing spaces, at all
  entry and exit points, and in the reception area.

## HAND HYGIENE PROCEDURE

Alcohol-based hand rub (ABHR) is the preferred method (when hands are not visibly soiled) for decontaminating hands. ABHR should be performed for at least 15 seconds until hands are dry. Using ABHR is more effective and efficient than washing hands (even with an antibacterial soap) when hands are not visibly soiled.

Soap and water wash should be used instead of alcohol-based hand rubs in the following situations:

- Whenever hands are visibly soiled
- If hands come into contact with blood or body fluids (including perspiration).

Ensure bar soaps are not used.





#### ALCOHOL-BASED HAND RUB

- See Appendix E: How to Hand Rub.
- Apply 1 to 2 full pumps (quarter sized amount) of product onto the palm of one hand.
- Spread the product over all surfaces of hands, concentrating on fingertips, between fingers, back of hands, base of thumbs, and wrists.
- Rub hands until product is dry. This will take a minimum of 15-20 seconds if sufficient product is used.
- The product must contain an alcohol concentration level of 70%-90%.

#### SOAP AND WATER WASH

The physical action of scrubbing and rinsing is important for effective removal of material from the hands. At least 15 seconds of lathering with soap is required to remove transient flora. See Appendix F: How to Hand Wash.

Follow the steps below for proper hand washing:



- If using a lever-operated paper towel dispenser, dispense a portion of towel before washing hands.
- 2. Wet hands with warm (not hot) water. Hot water is hard on the skin and will lead to dryness.
- 3. Avoid splashing and keep moisture away from sleeves and clothing.
- 4. Apply liquid soap (bar soaps must not be used).
- 5. Vigorously lather all surfaces of hands for a minimum of 15 seconds. Pay particular attention to fingertips, between fingers, backs of hands, base of thumbs, and wrists. These are the most commonly missed areas (15 seconds is the amount of time it takes to sing "Happy Birthday" twice).
- 6. Using a rubbing motion, thoroughly rinse soap from hands. Residual soap can lead to dryness and cracking of skin.
- 7. Dry hands thoroughly by blotting gently with a paper towel. Rubbing vigorously with paper towels can damage the skin. Leaving hands moist results in microorganisms being left on hands.
- 8. Use paper towel to turn off manual taps so as not to re-contaminate hands.
- 9. It is the mechanical action of a soap and water clean that makes it effective, so be thorough.





#### **GLOVES**

Glove use does not replace the need for hand hygiene.

- Hand hygiene must be performed before gloves are applied and immediately after removal. Gloves create
  a warm moist environment in which microorganisms multiply. Due to this, and to the potential for
  microscopic holes in gloves which can allow contamination to reach the skin during a procedure, hands
  are considered more contaminated after glove removal than before they were applied.
- Wear gloves when it is anticipated that the hands will be in contact with mucous membranes, non-intact skin, or bodily fluids.
- Change or remove gloves after touching a patient or contaminated environmental surface, and before touching a patient or a clean environmental surface.
- Ensure hands are dry before gloves are applied.
- Remove gloves immediately and discard them in a waste receptacle after completion of the activity for which they were used.
- Never use the same pair of gloves for the care of more than one patient.
- Never wash, sanitize, or reuse gloves.

#### HAND CARE AND JEWELLERY

The condition of the hands and the wearing of hand and wrist jewellery can influence the effectiveness of hand hygiene. Jewellery should be removed to allow effective hand hygiene to take place.

Intact skin is the body's first line of defense against infection, therefore attention to hand care is an essential part of the hand hygiene program. Maintaining healthy skin integrity is extremely important. Alcohol-based hand rubs are less irritating to skin than soap and water as hand rubs contain emollients to reduce skin irritation. Skin moisturization options that are compatible with gloves should be available to prevent dry skin.

# TO REDUCE SKIN DRYNESS AND IRRITATION

- Use warm running water instead of hot.
- Pat hands dry with paper towel instead of rubbing them.
- Use the lotion provided by The Dental Office.
- Avoid going back and forth between products. Avoid using ABHR and soap interchangeably—be consistent
  with using ABHR if hands are not visibly soiled for the best hand health.
- Protect hands from chemicals and extreme weather conditions at home and at work (i.e. use gentle cleansers, wear gloves in cold weather, etc.)





#### HAND LOTION

- Lotions that are compatible with gloves should be used to prevent skin dryness.
- Do not refill containers.
- Petroleum and mineral oil-based products degrade latex and should be avoided, if possible.
- Use the office approved hand lotions that are provided. They are designed to work in conjunction with
  products provided for hand hygiene in order to maintain skin integrity while providing antimicrobial action.
  They are also less likely to interfere with the integrity of gloves. Most office approved hand lotions have
  little or no scent and do not cause irritation to staff or patients.
- Sharing personal hand lotions is discouraged as they can easily become contaminated and become a vector for spreading microorganisms.
- Do not apply hand lotion immediately before donning gloves or handling sterile materials.
- Be wary of barrier creams as they are absorbed by the skin and may be harmful as they trap agents beneath
  them

#### NAILS

- Artificial nails and nail enhancements are not to be worn by staff who have direct patient contact or prepare instruments for sterile procedures.
- Discourage the use of artificial nails for all staff since they have been associated with the transfer of microorganisms.
- Nails are to be kept clean and short (nails must not show past the end of the finger).
- Long nails are difficult to clean, can pierce gloves, and can harbour more microorganisms than short nails.
- Nail polish in good repair is permitted for staff who do not have direct contact with patients. Chipped nail polish can harbour microorganisms that are not removed by hand washing.
- Gel polish has been shown to damage nails and put them at an increased risk of breaking. Nail art has also been shown to be associated with outbreaks of infection.

# **JEWELLERY**

- Rings other than plain bands are prohibited for staff who have direct patient contact. Rings increase the number of microorganisms present on the hands and increase the risk of tears in gloves.
- Plain bands may be left in place while performing hand hygiene.
- Eczema often starts under a ring as irritants may be trapped there.
- Arm jewellery, including watches must be removed or pushed up above the wrist for proper hand washing. Jewellery hides bacteria and viruses from the mechanical action of the hand hygiene agent.



# **Infection Prevention & Control**

