



Hand Hygiene Guidelines and Standards

DEFINITIONS

“Hand Hygiene” - A general term referring to any action of hand cleaning. Hand hygiene relates to the removal of visible soil and removal or killing of transient microorganisms from the hands. Hand hygiene may be accomplished using an alcohol-based hand rub or soap and running water.

GLOSSARY OF ACRONYMS

ABHR – Alcohol-Based Hand Rub

CDC – Centers for Disease Control and Prevention

1. PURPOSE

- 1.1. In health care, hand hygiene is used to eliminate transient microorganisms that have been picked up via contact with patients, contaminated equipment, or the environment. It is the most important and effective way of preventing the transmission of communicable diseases and infections to patients, staff, and visitors in all healthcare settings.

This document is not intended to educate on the reasons behind various hygiene techniques, but rather to guide on how to implement this knowledge. For more in-depth knowledge and theory, see [CDCs Guide on Handwashing](#).

2. STANDARDS OF PRACTICE

- 2.1. Pharmacists involved in compounding are expected to comply with the standards described in [NAPRA’s Model Standards for Compounding](#)
- 2.2. Pharmacists who administer drugs, using advanced method, or vaccines, regardless of the route of administration, must follow the standards described in SCPPs [Administration of Drugs by Injection and Other Routes](#).

3. ROUTINE PRACTICES

- 3.1. Each pharmacy must develop detailed written hand hygiene protocols that meet the needs of the services provided. Routine protocols should include, but are not limited to:

3.1.1. Situations where hand hygiene must be performed:

- 3.1.1.1. Before direct contact with a patient;
- 3.1.1.2. Before a clean or aseptic procedure (e.g., compounding, preparing medications for injection);
- 3.1.1.3. After exposure or risk of exposure to blood and/or bodily fluids (e.g. administering drugs by injection, after removal of gloves);
- 3.1.1.4. After direct contact with a patient or patient's environment (e.g., after handling patient care equipment such as blood glucose monitors);
- 3.1.1.5. After performing personal functions (e.g., blowing your nose or using the toilet);
- 3.1.1.6. After coughing or sneezing (See SSCP's policy on Respiratory Hygiene and Cough Etiquette);
- 3.1.1.7. After the handling of garbage or waste;
- 3.1.1.8. Upon arrival and departure to the pharmacy (i.e., when starting and finishing a shift);
- 3.1.1.9. Any time hands are visibly soiled;
- 3.1.1.10. Before putting on gloves; or
- 3.1.1.11. Whenever in doubt.

3.1.2. Selection of appropriate products for hand hygiene

- 3.1.2.1. Washing with soap and water and the use of ABHRs containing 60-90% alcohol are the preferred methods of performing hand hygiene and may be used interchangeably in all situations, except those described in 3.1.2.2
- 3.1.2.2. Plain soap and water **must be used instead of ABHRs when hands are visibly soiled** with food, dirt, blood, or other body fluids, before eating, after using the restroom and after several consecutive uses of ABHR;
- 3.1.2.3. Antimicrobial (antiseptic) soap is only used in limited circumstances, such as before aseptic procedures, and is not used for routine hand hygiene;
- 3.1.2.4. Hand cleaning wipes/towelettes are unsuitable for use;
- 3.1.2.5. Hand lotions should be available to staff and compatible with ABHR, soap and gloves.
 - 3.1.2.5.1.1. Encourage regular, frequent use to minimize the occurrence of irritant contact dermatitis associated with hand hygiene

- 3.1.2.5.1.2. Lotions that contain petroleum or other emollients may affect the integrity of gloves. See [Infection Control Guidelines Section 2.1.5.](#) for selection and use of gloves.

Procedure for Use of Alcohol-Based Hand Rub

- Ensure hands are not visibly soiled and are dry before use;
- Remove hand and arm jewelry;
- Enough ABHR should be applied to cover all hand surfaces (usually 1-2 pumps);
- Product is vigorously rubbed over all surfaces of the hands and wrists including palms, space between fingers, back of hands and wrists, fingers, fingertips, and thumbs;
- Hands must remain wet for a minimum of 20 seconds;
- Hands should be rubbed until completely dry – do not shake dry.

See WHO's video: [“How to hand rub? With alcohol-based formulation”](#) for a visual representation of how to use ABHR. Also see [Jewelry as a Barrier to Effective Hand Hygiene](#).

Procedure for Washing with Soap and Water

- Short sleeved clothing should be worn or long sleeves should be rolled up;
- Remove hand and arm jewelry;
- Hands are wet with warm water and enough soap is applied to ensure lathering of all hand surfaces;
- Hands are vigorously rubbed over all surfaces of the hands and wrists, including palms, space between fingers, back of hands and wrists, fingers, fingertips, and thumbs;
- Hands are rubbed for a minimum of 20 seconds;
- Hands are rinsed under warm, running water;
- Hands are dried with disposable paper towels – do not shake dry;
- Hands are not re-contaminated after washing (i.e., faucet is turned off and doors are opened with paper towel);
- Paper towels are discarded in a waste receptacle.

See the CDC's video: [“Fight Germs: Wash Your Hands!”](#) for a visual representation of how to wash hands with soap and water. Also see [IPAC Canada Practice Recommendation for Hand Hygiene in Healthcare Settings](#)

3.1.3. Hand Hygiene must be supported by adequate infrastructure

- 3.1.3.1. Hand hygiene products are as close as possible to the point of patient care;
- 3.1.3.2. Wall-mounted ABHR dispensers are installed in appropriate designated areas away from sinks. Areas include, but are not limited to:
 - 3.1.3.2.1. Private Care Areas;
 - 3.1.3.2.2. Public areas (e.g., building entrance/exits);
 - 3.1.3.2.3. Staff rooms;
 - 3.1.3.2.4. Medication preparation areas without sinks.
- 3.1.3.3. Hand hygiene products are not used past expiry. Date of expiration is visible on product containers;
- 3.1.3.4. Containers of antimicrobial soap and hand lotion shall not be “topped up” (added to) when product is running low. A new container shall be provided to avoid contamination;
- 3.1.3.5. Handwashing sinks must be cleaned on a regular basis;
- 3.1.3.6. A towel dispenser should be located near the sink and be designed to allow for removing towels without having to touch the dispenser.
 - 3.1.3.6.1. Reusing or sharing towels for hand drying is not suitable because of the risk of cross-infection
- 3.1.3.7. Hand hygiene products are available for patients and customers.

3.1.4 Employees with barriers to performing adequate hand hygiene should not perform tasks that require hand hygiene.

- 3.1.4.1 Employees who cannot perform adequate hand hygiene include, but are not limited to, individuals:
 - 3.1.4.1.1 Wearing casts, dressings, and/or splints;
 - 3.1.4.1.2 Wearing artificial nails, nail enhancements and/or nail polish;
Note: Fingernails must be clean and neatly trimmed short. See [MicroSCOPE October 2019 “Hand Hygiene and Compliance”](#).
 - 3.1.4.1.3 Wearing hand jewelry other than a simple ring (i.e., band).
- 3.1.4.2 Tasks requiring hand hygiene include, but are not limited to:
 - 3.1.4.2.1 Providing patient care;
 - 3.1.4.2.2 Administering drugs by injection or other routes;
 - 3.1.4.2.3 Handling medical devices such as blood glucose monitors; and
 - 3.1.4.2.4 Compounding

3.1.5 A proactive skin care program to minimize irritation or breakdown of skin so hand hygiene can be optimal, including:

- 3.1.5.1 Effective oil-containing skin care products and barrier creams that do not interfere with the antimicrobial effect of the hand hygiene product being used;
- 3.1.5.2 Skin care products that do not have adverse effects on gloves;
- 3.1.5.3 Skin care products are to be placed as close as possible to areas where hand hygiene is performed;
- 3.1.5.4 Luke-warm water is recommended to be used as it causes less skin irritation and increases compliance to hand hygiene.

3.1.6 Hand hygiene training and education shall be provided to new employees during orientation and ongoing thereafter and it should include, but is not limited to, the following:

- 3.1.6.1 Indications for hand hygiene;
- 3.1.6.2 Barriers to adequate hand hygiene;
- 3.1.6.3 Products used for hand hygiene and when each is appropriate (See 3.1.2);
- 3.1.6.4 How to perform hand hygiene; and
- 3.1.6.5 Hand care to promote skin integrity (i.e., minimize skin irritation or breakdown).

4 RELATED RESOURCES

4.1 Public Health Ontario – Promotional Material

- [How to Handwash](#) poster and [How to Hand Rub](#) poster

5 ACKNOWLEDGEMENTS

This document is an adaptation of the Alberta College of Pharmacy’s “Guidelines for Hand Hygiene” and SCPP would like to acknowledge the Alberta College of Pharmacy for their contribution.

6 REFERENCES

The document has also been adapted from information in the following references:

- 6.1 Alberta College of Pharmacy. Guidelines for Hand Hygiene, 2016. Available at: <https://abpharmacy.ca/guidelines-hand-hygiene>

- 6.2 Public Health Agency of Canada. Hand Hygiene Practice in Healthcare Settings, 2012. Available at: <http://publications.gc.ca/site/eng/430135/publication.html>
- 6.3 Saskatchewan Health Authority, Former Saskatoon Health Region (IP & C) Policies. Hand Hygiene, 2014. Available at: <https://www.saskatoonhealthregion.ca/about/Pages/Policies-IPC.aspx>
- 6.4 Centers for Disease Control and Prevention. 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, 2002. Available at: <https://www.cdc.gov/mmwr/PDF/rr/rr5116.pdf>
- 6.5 World Health Organization. WHO: How to hand rub? With alcohol-based formulation, 2015. Available at: <https://www.youtube.com/watch?v=ZnSjFr6J9HI>
- 6.6 Centers for Disease Control and Prevention. [Fight Germs. Wash Your Hands! 2017](#).
- 6.7 Infection Prevention And Control (IPAC) Canada Practice Recommendation: Hygiene in Healthcare Settings, 2022. Available at: [22Nov11_Hand Hygiene_Practice Recommendation.pdf \(ipac-canada.org\)](#)
- 6.8 Centre for Communicable Diseases and Infection Control (Canada): Hand Hygiene Practices in Healthcare Settings, Available at: [HP40-74-2012-eng.pdf \(publications.gc.ca\)](#)