

# Hand Hygiene Policy and Procedure – Frequently Asked Questions

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AHS has revised the Hand Hygiene Policy and Procedure in 2016 as part of the regularly scheduled policy revision process. Should you have any additional questions regarding the information in the Hand Hygiene Policy and Procedure please contact the Policy and Forms Department at [policy@ahs.ca](mailto:policy@ahs.ca). The clinical policy website is the official source of current approved clinical policies and procedures.

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## Frequently Asked Questions - Answers

### Answers for General Policy Questions

1. What are the key changes to the new Hand Hygiene policy compared to the old one?  
The main framework of the Hand Hygiene Policy and Procedure did not change. Updates include a number of smaller changes such as grammatical and word changes. The content was reorganized into sections that arrange the content into logical subsections. Key changes to the content include the following:
  - a. **The 4 Moments for Hand Hygiene:** The policy now clearly identifies the 4 Moments for Hand Hygiene.
  - b. **Safer Practice Notice** on [guidelines for prevention and response to ingestion of ABHR:](#) Reference to the newly developed guidelines on how to mitigate the risks associated with intentional or accidental ingestion of ABHR was added.
  - c. **Standata Fire code:** Recommendations for proper storage and installation of wall mounted ABHR dispensers now make reference to the Alberta Standata Fire Code.
  - d. **Hand Hygiene Compliance:** Recommendation to share hand hygiene compliance results with staff and medical staff was added.

- e. **Required amount of ABHR:** The appropriate amount of ABHR required for proper hand hygiene has changed from “2-3 pumps” to “a palmful”.
2. **What is proper Hand Hygiene?**  
Hand Hygiene means proper practices which remove micro-organisms with or without soil from the hands. Proper Hand hygiene requires that all surfaces of the hand (including the backs of the hands, thumbs, wrists, nail beds and between the fingers) be cleaned and decontaminated using either an Alcohol Based Hand Rub (ABHR) or Soap and Water. Refer to the specific steps in the Hand Hygiene Policy.
  3. **What is the evidence for Hand Hygiene?**  
In Canada, approximately 1 in 9 patients (250,000 individuals) acquire an infection each year as a consequence of time spent in the hospital and 8,000 to 12,000 of those individuals die from these infections. Adherence to hand hygiene recommendations is the single most important practice for preventing the transmission of microorganisms in health care, and directly contributes to patient safety. Several observational studies from a variety of countries and settings have demonstrated a reduction in HAI rates related to improved hand hygiene practices. Contaminated hands can transmit microorganisms to inanimate surfaces, and from unclean sites to clean sites on one patient or to another patient. However, achieving and sustaining improved adherence to hand hygiene is difficult and is everyone’s responsibility.

## Answers for Alcohol Based Hand Rub

4. **I have been told that AHBR is not as good as hand washing. Is this true?**  
No. Evidence shows the use of ABHR is as good as or better than hand washing with soap and water. For example, a randomized clinical trial conducted in France in 2001 found that “the reduction of total bacterial contamination of participants’ hands was significantly higher after hand rubbing (with alcohol hand rub) than after antiseptic hand washing (with antimicrobial soap).” ABHR is also faster, more convenient, and causes less skin irritation with repeated use (due to the presence of emollients) (Boyce, et al. 2000).
5. **How much ABHR is enough?**  
Depending on the size of your hands, the amount of ABHR may vary. It is recommended you use enough product to cover your hands (approximately one palm full) and vigorously rub product over hands until all surfaces are completely dry.
6. **Are there a maximum number of times I should use ABHR?**  
There is no maximum number of times to use ABHR. ABHR is recommended to be the first choice for hand hygiene according to Centre for Communicable Disease Control (CDC). Review the AHS HHPP to guide you when to use soap and water for hand hygiene.
7. **What is the acceptable alcohol content for ABHR to be safe and effective?**  
ABHRs with an alcohol concentration from 60% to 90% are appropriate for clinical care. Alcohols vary in the concentrations necessary to reduce the number of microorganisms on the hands and in their efficacy against different types of microorganisms (e.g. bacteria or viruses).

## Answers for Hand Health

8. **Does Alcohol Based Hand Rub (ABHR) cause skin irritation?**

ABHR is generally well tolerated by staff. The most common reason for adverse effects from ABHR is a pre-existent skin irritation from washing with soap and water.

ABHR used on healthy skin should rarely cause skin problems. ABHR products do less damage to the lipid layer of the skin than soap and water, consequently, regular use of ABHR results in healthier hands.

The most common type of skin reaction to hand hygiene products is called *contact dermatitis* which includes symptoms that can vary from mild to debilitating including dryness, irritation, itching, and even cracking and bleeding. These problems are more likely to occur with the use of soap and water.

**NOTE:** In the dry winter season, hands will be much more susceptible to irritation; however, the irritation isn't necessarily due to the use of ABHR. While the ABHR products selected for use in AHS contain emollients, regular use of AHS provided hand lotions is recommended to increase the moisture content of the hands.

#### 9. Does the alcohol in ABHR used on my hands dry out my skin?

No, alcohol does not leach out the lipids in the skin as much as soap does. The lipids in the skin play an important role in maintaining the skin's moisture. In addition, AHS uses ABHRs that contain emollients, and emollients, irrespective of the type of alcohol or percentage used (n-propanol, isopropanol or ethanol), are well tolerated and do not dry out or irritate the skin (Girou, 2002). Regular use of ABHR has been shown to increase the moisture content of hands thus causing less dryness and irritation.

#### 10. What can I do to prevent skin irritation from frequent hand hygiene?

There are a number of factors that can impact the integrity of your skin from hand hygiene. These include how hand hygiene products are used, the use of multiple different hand hygiene products, use of procedure gloves, water intake, and the weather.

1. **ABHR should be your first choice** and recommended product of choice for performing hand hygiene. Hand washing with soap and water should be performed when hands are visibly soiled with food, dirt or blood and body fluids and during food preparation or following glove removal for care of patients with diarrhea and/or vomiting.
2. **Do NOT wash hands with soap and water after applying ABHR.** It is not necessary and will remove the skin moisturizers in the ABHR.
3. **Do NOT wash hands with soap and water before applying ABHR.** It is not necessary and will increase skin irritation and reduce tolerance to the alcohol in the ABHR.
4. **Use AHS provided hand lotion** as a supplement to the moisturizer contained in the ABHR. AHS provided hand lotion will not impair the disinfectant activity of ABHR. Non AHS provided hand lotions may cause chemical incompatibilities and lead to the transmission of microorganisms and/or skin integrity issues.
5. **Tips for winter and around home**
  - a. Drink lots of water; dry weather dries out the natural moisture in skin
  - b. Wear gloves or mitts to protect your hands from cold air
  - c. Use rubber gloves to protect your hands from further irritation from chemicals at home (e.g., when doing dishes, gardening, etc.)

#### 11. What should I do if I am having ongoing irritation or skin problems on my hands?

Consult Workplace Health and Safety. The OHN will review your current practices for hand hygiene, including options for using alternate products on the AHS provided inventory. Hand hygiene product accommodation may arise if a need is identified by you, your manager or a third party (e.g. a medical

practitioner). Employees are discouraged from seeking alternate products without consultation with OHN. Please see the [Hand Health Guidance Document](#) for further information.

#### 12. Where can I find AHS provided lotion?

Wall mounted and labeled lotion dispensers are located throughout AHS facilities and available to all staff. Ensure to not confuse lotion dispensers with ABHR dispensers. Should there be no lotion available in your area contact your supervisor or manager.

### Answers for Hand Hygiene Products

#### 13. Can I bring in my own products and lotions from home to use at work for hand hygiene?

No, only use AHS provided products should be used to perform hand hygiene. Reasons for this include:

- a. Often store bought products contain petroleum based ingredients that can deactivate antimicrobial agents found in ABHR.
- b. Store bought products often don't have an anti-reflux valve that prevents back flow of product which can cause the product to become contaminated.
- c. To prevent over exposure to multiple types of chemicals which can increase the risk of dermatitis, it is recommended to use one line of products for hand hygiene.

#### 14. How are AHS provided hand hygiene products selected?

AHS Hand Hygiene products are chosen based on a variety of considerations, including:

- a. The effectiveness of the product in reducing the microorganisms on the hands
- b. If emollients/moisturizers are added to improve the health of the hands
- c. The amount of the product is needed on the hands
- d. How quickly the product works
- e. If it is safe to use on all patients
- f. If it is safe for staff to use repeatedly over time
- g. If all the products are scent free
- h. If all the products are compatible with each other which can reduce the number of chemicals on hands and potentially reduce the risk of skin integrity issues such as dermatitis
- i. If the product containers have anti-reflux valves that stop the product from drawing back into the dispenser/container and to prevent the product from becoming contaminated.

#### 15. Can I use a non-alcohol based hand rub product to perform hand hygiene?

No. Non-alcohol based hand rub products contain benzalkonium chloride which is effective against gram positive bacteria but not all gram negative bacteria such as *E. coli* and *Pseudomonas*. Therefore, they can't be used in healthcare settings due to the potential risk for outbreaks associated with these microorganisms.

### Answers for Hand Hygiene with Soap and Water

#### 16. When should I use soap and water instead of ABHR?

Plain soap and water are recommended:

- a. when hands are visibly soiled with food, dirt or blood and body fluids;
- b. following glove removal when caring for patients with diarrhea and/or vomiting;
- c. prior to and during food handling; and
- d. Immediately after using toilet facilities.

### 17. When should I use antimicrobial soap?

The routine use of antimicrobial soaps for hand hygiene is not necessary and may result in resistance. Antimicrobial soap and water shall be used only before surgical and/or prolonged invasive procedures. Antimicrobial soap dispenser locations will be determined by staff, medical staff and Infection Prevention and Control based on clinical need

### 18. How should I dry my hands after I wash with soap and water?

Pat hands dry with a disposable paper towel from a closed paper towel dispenser; don't rub. For healthcare settings, closed paper towel dispensers are preferred over a roll or stack of paper towels sitting beside the sink because the risk of re-contamination through splashes. Periodically apply AHS provided hand lotion to assist in maintaining skin integrity.

### 19. Should air dryers be used in clinical areas?

As per IPC [Best Practice Guideline for Selection of Sinks and Faucet Fixtures](#), hot air dryers shall not be used in clinical areas as warm air currents dry hands slowly and can be used by only one individual at a time. In non clinical areas paper towel dispensers will continue to be needed until such time as all sinks are equipped with automatic faucets, and all bathrooms are a walk in style (no door).

## Answers to Barriers to effective hand hygiene

### 20. Can I wear gloves as a substitute for hand hygiene?

Gloves provide an extra barrier when in contact with blood and body fluids, however, we know that 5% of gloves can have micro-tears and that these micro-tears can increase the longer gloves are worn which allow microorganisms to contact the skin. Also, when gloves are removed the hands can become contaminated by the gloves as they are pulled off. Therefore hands are considered contaminated even when gloves have been used and hand hygiene is required after gloves have been removed.

### 21. I am wearing a cast/splint or dressing. Can I wear gloves on my hands and continue to work?

According to **AHS Hand Hygiene Policy and Procedure**, you must be able to perform proper hand hygiene when providing direct or indirect patient care. Wearing gloves over a splint or cast or dressing is not a substitute for hand hygiene. You must be able to perform proper hand hygiene covering all areas of your hands and wrists. If the cast/splint or dressing prevents you from performing proper hand hygiene, you should always consult AHS OHN/WCB for further direction.

### 22. What do I do when there is no running water or clean water available?

Running water should always be available in your work setting. However, if for some reason running water is not available, Hand cleaning wipes/towelettes can be used for removing visible soil from hands. ABHR shall be used following the use of hand cleaning wipes/towelettes. Hands shall be washed once running water is available.

### 23. In my daily work environment I do not always have access to wall mounted ABHR or Soap dispensers to perform hand hygiene. What can I do?

Small portable, pocket size bottles of ABHR are available for healthcare workers who work in areas where access to ABHR may be limited (e.g., mental health or community settings.) Small bottles of soap are also available for staff members (e.g. Home Care) who work out in the community. Contact your supervisor or manager to obtain portable ABHR bottles.

#### 24. Can I wear Shellac or any other nail enhancements?

Because artificial fingernails may harbour pathogenic microorganisms more frequently than natural nails, they may contribute to transmission of microorganisms to patients. Studies also suggest that longer fingernails (artificial and natural) harbour more microbes and/or viruses than short nails. Several outbreaks of infection caused by Gram-negative bacilli or yeast implicated health-care workers artificial nails and/or long nails. It is important to keep fingernails healthy, because fingernail disease may reduce the efficacy of hand hygiene and result in transmission of pathogens, as evidenced by a report of a cluster of *P. aeruginosa* surgical site infections resulting from colonization of a cardiac surgeon's fingernails. There is evidence that chipped fingernail polish worn for more than four days increased the number of bacteria on the fingernails of nurses after surgical hand scrubs.

### Answers to ABHR and Safety

#### 25. What is done to help prevent patients from consuming the ABHR?

ABHR can pose a risk to our patients and result in harm, including death, if ingested. Clinically serious adverse events associated with intentional ingestion of ABHR continue to be a safety risk for some patients at AHS. In response, [guidelines for prevention and response to ingestion of ABHR](#) have been introduced to mitigate this risk. These guidelines include: a) [ABHR Dispenser Placement Guidelines](#), b) [Product Ingestion Risk Screening](#), c) [Product Ingestion Care Management Guidelines](#), and d) [Frequently Asked Questions](#).

#### 26. Is a large amount of stored ABHR a fire hazard?

There are potential fire and occupational safety hazards associated with the storage and use of products 60% or greater alcohol concentration. Studies have shown that if certain conditions are met, the fire hazard created by these products is greatly reduced while there can be a significant benefit in reducing acquired infections. Alberta Standata Fire Code regulates the storage and handling of flammable liquids and combustible liquids in Care facilities to mitigate fire hazard risks. Therefore, ABHR wall mounted dispensers shall be installed according to the Standata Fire Code regulations.

#### 27. Can ABHR be absorbed through my skin and lead to passive alcoholization?

The potential for systemic diffusion of alcohol or its metabolites through skin absorption or airborne inhalation related to the use of ABHR has been investigated (Kramer et al.). It was found that ethanol absorption is negligible.

#### 28. Is ABHR cancerous?

ABHR is safe to use and there is no evidence to suggest that the use of ABHR causes cancer.

### Answers to Hand Hygiene Reviews and Compliance

#### 29. Why is AHS reviewing and reporting on my hand hygiene compliance?

The collection of and reporting on of hand hygiene data is a Required Organizational Practice set out by Accreditation Canada. Alberta Health Services includes hand hygiene as one of the 16 Performance Measures reported to Albertans. Furthermore, Hand hygiene information is used to:

- a. Increase awareness of the impact and importance of proper hand hygiene in the prevention and control of healthcare-acquired infections,

- b. Reinforce Alberta Health Services commitment to and expectations of hand hygiene practices in the provision of healthcare services,
- c. Gauge the implementation and effectiveness of hand hygiene improvement efforts across the province,
- d. Identify barriers to hand hygiene

### 30. Do I have to be observed by IPC and/or Site-Based Hand Hygiene Reviewers?

Monitoring hand hygiene compliance according to the **4 Moments for Hand Hygiene** and offering health care providers feedback regarding compliance are considered essential elements of hand hygiene improvement initiatives. AHS uses Direct Observation to monitor hand hygiene compliance of health care providers as recommended by the World Health Organization and other organizations such as the Canadian Patient Safety Institute. Conducting hand hygiene reviews is an open and transparent process. Health care providers may close curtains and doors to provide privacy for their patients. Reviewers are members of the health care team and have signed AHS confidentiality agreements. If a patient gives permission, reviewers may enter treatment spaces to observe procedures as long as they do not interfere with workflow.

### 31. What is a hand hygiene moment?

A risk of microorganism's transmission from one surface to another, from one patient to another, or from one body site to another by the hands of health care providers. AHS Hand Hygiene Policy outlines 4 Moments for Hand Hygiene which are based on the risk of microorganism transmission when a health care provider is interacting with a patient.

### 32. If I do not touch anything in the patient's environment, will I be recorded as non-compliant for hand hygiene?

The health care provider must perform hand hygiene before and after making **direct physical contact** with the patient or patient's environment. Therefore, the health care provider **MUST** make contact with the patient or the patient's environment to record a moment (i.e. no contact = no moment). Hand Hygiene Reviewers will not record a missed or compliant moment if no contact occurred. However, it is best practice to get into the habit of performing hand hygiene on the way in and out of the patient's room/environment to in anticipation of any contact that may occur and to demonstrate our commitment to clean hands to our patients. Studies have shown that health care providers frequently contact something in the patient's environment often unknowingly.

### 33. Where can I find my area's hand hygiene compliance?

Your areas hand hygiene compliance should be posted or readily available in a location accessible to staff. If you can't find your hand hygiene compliance contact your supervisor or manager or email your zone [Hand Hygiene Project Manager](#).

### 34. I want to become a hand hygiene reviewer. Who should I contact about this?

The IPC Hand Hygiene Program is always happy to welcome new frontline (site-based) Hand Hygiene Reviewers. Please talk to your supervisor/manager and then contact [hand.hygiene@ahs.ca](mailto:hand.hygiene@ahs.ca)

### 35. I have more questions about hand hygiene. Who should I contact?

The IPC Hand Hygiene Program is always happy to answer any questions you may have around hand hygiene or hand hygiene compliance reviewers. Please contact [hand.hygiene@ahs.ca](mailto:hand.hygiene@ahs.ca) or your zone [Hand Hygiene Project Manager](#).