Product Tool

Product Tool Instructions

Suggested Lead:	Infection Prevention and Control
Suggested Support:	Maintenance and Facilities (Housekeeping),
Approximate Completion Time:	Occupational Health, and Unit Managers 1 to 3 hours

Objectives

 To verify that the hand hygiene products (alcohol-based hand rub, soap, lotion, sinks, paper towels, and waste receptacles) currently used at your facility satisfy users' needs and meet the requirements of infection prevention and control.

How to use this tool

- 1. Complete the **Product Checklist**. A total of <u>37 recommendations</u> are included in this checklist.
 - If hand hygiene products are readily available in the Infection Prevention and Control department, then the checklist can be completed in there. If not, the checklist will need to be completed on the unit.
 - Ensure that every sink type available in the patient care areas is evaluated.
- 2. Discuss the recommendations that were not met with the Hand Hygiene Committee and plan next steps. If your current products do not meet the 'Important-to-Have' recommendations, you may need to purchase new products or label your current products. To help you do so, the following guides are provided:
 - Product Procurement Guide
 - Label Design Guide

Before you start

- 1. You should be familiar with the hand hygiene product terms found in the **Hand Hygiene Product Reference Guide.**
- 2. You will need:
 - Access to the hand hygiene products available at your facility, and
 - A stopwatch.

Recommendation categories

Important-to-Have recommendations are based on:

- Nationally legislated requirements (Note: These recommendations will be indicated); and/or
- Best practice (the minimum standard based on current recommendations in the medical literature); and/or
- Human factors principles.

Nice-to-Have recommendations are based on:

Advisory or optional statements.

Human Factors Principles

The following human factors principles were applied to generate the recommendations contained in the Product Checklist: (See *What is a User-Friendly Hand Hygiene Environment?* for a full explanation of these principles.)

Visibility <v></v>	Efficiency <e></e>
Accessibility <a>	Flexibility <f></f>
Consistency <c></c>	Error Prevention <ep></ep>

Product Checklist

Recommendation	Met	Not	Met	Rationale / Notes
 ABHR has a Drug Identification Number (DIN) or a Natural Product Number (NPN). 1*** 				 To meet product licensing regulations set by Health Canada. NOTE: Products that have a DIN or NPN are listed in: Health Canada's Drug Product Database (http://webprod.hc-sc.gc.ca/dpd-bdpp/newSearch- nouvelleRecherche.do?lang=eng), or Licensed Natural Health Products Database (http://webprod.hc-sc.gc.ca/Inhpd-bdpsnh/start- debuter.do?language-langage=english)
 ABHR has a concentration between 60%- 90% alcohol. 				To kill most transient microorganisms. <ep></ep> NOTE: To combat noroviruses in healthcare settings, ABHR with a minimum concentration of 70% alcohol is preferred. ^{1*} NOTE: Minimal research has been conducted to verify the efficacy of each form of ABHR. The use of ABHR as a gel, liquid, or foam is acceptable.
 One squirt of ABHR requires a minimum of 15 seconds to dry. 				To provide adequate time for proper hand coverage of the ABHR.
4. ABHR is dispensed from a disposable container or bottle.				To decrease the risk of product contamination associated with refilling containers and bottles. <ep></ep>
5. Lotion is dispensed from a disposable container or bottle.				To decrease the risk of product contamination associated with refilling containers and bottles. <ep></ep>
 There are no known compatibility issues between ABHR, lotion, soap, and gloves currently used at your facility. 				To ensure that the efficacy of each product is not altered when a combination of these products is used. ² <ep></ep> NOTE: Use of petroleum-based hand lotions or creams may adversely affect the integrity of latex gloves. NOTE: Following the use of powdered gloves, some ABHRs may interact with residual powder on hands, resulting in a gritty feeling on the hands. In facilities, where powdered gloves are commonly used, a variety of ABHRs should be tested following removal of powdered gloves in order to avoid selecting a product that causes this undesirable reaction. TIP: Request information from product manufacturers regarding known incompatibility issues between hand hygiene products used in healthcare.
7. ABHR contains emollients.				To reduce hand irritation and dryness. <ep></ep> NOTE: An emollient is a chemical additive used to soften skin (e.g. isopropyl myristate).
***Legislated Requirement				
Important-to-Have				
Nice-to-Have			1	
				l

Recommendation	Met	Not	Met	Rationale / Notes
8. Hand hygiene products are dye-free.				To maintain a hypoallergenic environment.
a. ABHR				
b. Lotion				
c. Soap				
 Hand hygiene products have minimal fragrance or are fragrance-free. 				To maintain a hypoallergenic environment.
a. ABHR				
b. Lotion				
c. Soap				
10. Hand hygiene products leave little to no residue on hands.				To encourage staff to use products more often.
a. ABHR				
b. Lotion				
c. Soap				
11. Alternative hand hygiene products are provided to staff who have allergies or have experienced adverse reactions to standard products.				To ensure all staff have necessary supplies to practice hand hygiene. <f></f>
a. ABHR				
b. Lotion				
c. Soap				
12. Lotion effectively moisturizes but does not leave hands feeling greasy.				To promote hand moisturizing while not creating a barrier that can trap contaminants. <ep></ep>
Important-to-Have Nice-to-Have				

Alcohol-Based Hand Rub (ABHR), Lotion and Soap Products [Continued]

Dispensers and Bottles

ecommendation	Met	Not	Met	Rationale / Notes
 One to two squirts from a dispenser or bottle of any hand hygiene product provides a sufficient volume for hand coverage. 				To ensure enough of the product is dispensed for each pump or press. <e></e>
a. ABHR				
b. Lotion				
c. Soap				
 Hand hygiene product nozzles to not become blocked or partly blocked. a. ABHR 				To avoid product being provided in suboptimal volumes and to avoid product squirting in unwanted directions. <ep></ep>
b. Lotion				
c. Soap				
5. Dispensers for different products look different from one another.				To avoid confusion between products. <ep></ep>
a. ABHR				NOTE: 'Look-alike dispensers' refer to those that are similar in shape and/or size and/or colour.
b. Lotion				TIP: For look-alike dispensers, attach labels on the outside of the dispensers to make them more distinguishable. See
c. Soap				Label Design Guide
 Product containers only fit into their respective dispensers or holders (e.g. soap containers only fit into soap dispensers and not into ABHR or lotion dispensers). 				To ensure refill products are always in the correct dispensers. <ep> TIP: For products that fit into multiple dispensers (i.e. soap</ep>
a. ABHR				replacement containers fit into soap and/or ABHR dispensers, and/or lotion dispensers), attach unique labels inside and outside of dispensers to help staff identify where products
b. Lotion				should be placed.
c. Soap				
Important-to-Have				
a. ABHR b. Lotion c. Soap				replacement containers fit into soap and/or ABHF and/or lotion dispensers), attach unique labels ins

Dispensers and Bottles [Continued]

Recommendation	Met	Not	Met	Rationale / Notes
17. Remaining product levels are clearly				To identify empty dispensers quickly and easily. <e></e>
visible in regular lighting while standing				NOTE: Visibility can be affected by tisted windows
directly in front of the dispenser or bottle at a minimum distance of 2 feet				NOTE: Visibility can be affected by: tinted windows, small windows, labels, and collapsed cartridges (liquid-
(61cm).				to-foam systems).
a. ABHR			_	
a. ADHN	Ш		Ш	
b. Lotion				
c. Soap				
18. Hand hygiene products do not drip				To avoid surface stains and the need for excessive
from the nozzle.				cleaning. <ep></ep>
a. ABHR				
b. Lotion				
c. Soap				
Important-to-Have				
Nice-to-Have				
				1

Dispensers and Bottles [Continued]

 9. Only one hand is required to access hand hygiene products from dispensers and bottles. a. ABHR b. Lotion c. Soap 0. A key is not required to open dispensers a. ABHR 		To make hand hygiene practice more efficient. <e></e> NOTE: Pump bottles, wall dispensers, and touch-free dispensers require only one hand to access the product. NOTE: Provide personal ABHR to staff who prefer to carry ABHR with them. TIP: When considering the purchase of automatic touch-free dispensers, note the following issues: (i) Sensor reaction time can be slow or may not trigger; (ii) The dispenser's front panel may be confusing if automaticity and area of hand placement is not clearly indicated; (iii) Replenishing the supply may
		require extra steps; and (iv) A battery replacement process and recycling program will be required.
a ABHR		 To increase the efficiency of product replenishing. <e></e>
		NOTE: In some clinical areas, such as psychiatric or pediatric wards, a key may be required to lock dispensers to mitigate
b. Lotion		the risk of ingestion.
c. Soap		
Important-to-Have Nice-to-Have		

Gloves and Glove Box Holders

Recommendation	Met	Not Me		Rationale / Notes
21. Gloves meet the Canadian General Standards Board Certification and Qualification Program is available at the facility.			TIP: To verify that the gloves usec CGSB requirements, refer to <u>http:/</u> pwgsc.gc.ca/cgsb/prgsrv/certprg/p	/www.tpsgc-
22. Different types of gloves are available to the staff.		C	To enable staff to select gloves that activities. <f></f>	at best suit their care
23. Glove box holders hold multiple glove boxes.			To ensure that required sizes are NOTE: Glove box holders that ho three standard sizes (small, mediu	d three glove boxes for
24. Glove box holders have dividers between glove boxes.		C	To ensure that dedicated spots for maintained and missing sizes are	
25. Glove box holders have labels for each glove size available (e.g. S, M, L) located on the outside and inside of the mount.		C	To easily identify which glove size	is available or missing. <v></v>
Important-to-Have				

Hand Washing Only Sinks

Recommendation	Met	Not	Met	Rationale / Notes
 Hand washing sinks are used for hand washing only and not for any other purpose. 				To significantly decrease the risk of cross contamination. <ep></ep>
F F				TIP: Hand washing only sinks should not be used for cleaning of equipment, disposing of intravenous or other solutions.
 Hand washing sinks are freestanding, made of non-porous material, and without attached storage cabinets. 				To ensure a clear area around sanitary sewer connections and for visibility of leaks or water damage. ¹ V >
 Sinks have a means for water temperature adjustment. 				To allow staff to adjust the water to their temperature preference. <f></f>
				NOTE: Sensor-operated faucets should have a means for manual adjustment of temperature.
29. Faucets are hands-free.				To mitigate the risk of cross-contamination. <e> <ep></ep></e>
				DEFINITION: Hands-free sinks refer to sinks that that are operable without hands (e.g. wrist operated, foot-controlled sinks and sensor-operated sinks, also known as automatic sinks). ³
				NOTE: The World Health Organization lists automated sinks as an observed risk factor for poor hand hygiene adherence.
30. Little to no splash-back occurs when sinks are in use.				To avoid contamination of hands and faucets. <ep></ep>
 Spouts are fixed in place and are not aligned with the drain. 				To avoid splashback of drain contents which can lead to contamination. <ep></ep>
32. Basins are large enough to allow for hands and forearms to be washed.				To provide staff with adequate space in the sinks. <e> NOTE: Splashback of drain contents can occur where high- pressure water flows through high gooseneck spouts into shallow sinks and directly down the drain.⁴</e>
Important-to-Have				
Nice-to-Have				

Waste Receptacles

Recommendation	Met	Not	Met	Rationale / Notes
 Waste receptacles are foot-operated or lid- free. 				To ensure quick and easy access. <e></e>
Important-to-Have				
Nice-to-Have				

Paper Towels and Drying Technology

 34. Disposable paper towels are available to dry wet hands in clinical areas. 35. Paper towel dispensers are designed so only the paper towel is touched during removal of towel. 36. Paper towel dispensers are translucent instead of opaque. 37. Paper towel dispensers hold a roll instead of folded paper towel sheets. 37. Paper towel dispensers hold a roll instead of folded paper towel sheets. 36. Paper towel dispensers hold a roll instead of folded paper towel sheets. 36. Paper towel dispensers hold a roll instead of folded paper towel sheets. 	Recommendation	Met	Not Met	Rationale / Notes
only the paper towel is touched during removal of towel. Important-to-Have Important-to-Have To ensure visibility of the towel supply standing 2 feet (61cm) away from the dispenser in regular lighting. <v> 36. Paper towel dispensers are translucent instead of opaque. Important-to-Have Important-to-Have Important-to-Have</v>				
instead of opaque. instead of opaque. 37. Paper towel dispensers hold a roll instead of folded paper towel sheets. Image: Comparison of the time of	only the paper towel is touched during			To reduce the risk of dispenser contamination. <ep></ep>
folded paper towel sheets. Important-to-Have				
				replenishing paper towel sheets. <ep></ep> NOTE: Topping-up of paper towel sheets can introduce risk of
	Important to Have			
				-

Product Procurement Guide

This procurement guide provides a step-by-step process for ensuring the procurement of the most appropriate hand hygiene products for your facility:

Step 1 – Select a Product Procurement Lead

 The Product Procurement Lead will be responsible for conducting the Preliminary Evaluation of Products (Step 2) and facilitating the Hands-On Product Test (Step 3). (Note: The Product Procurement Lead may be the Product Tool Lead.)

Step 2 – Conduct the Preliminary Evaluation of Products

- Search the Internet for different hand hygiene products.
 - Refer to Health Canada's Licensed Natural Health Products Database for a list of approved ABHR products - <u>http://webprod.hc-sc.gc.ca/lnhpd-</u> <u>bdpsnh/start-debuter.do?language-langage=english</u>
- Contact manufacturers for product samples, dispenser samples and personal-carry options.
- Solicit information regarding compatibility issues between potential products and hand hygiene products currently used at your facility. For example, gloves may be adversely affected by petroleum-based hand lotions or creams.
- Compare potential ABHR, lotion, soap and glove box holders using the Preliminary Evaluation of Products Forms provided (Figures 1 to 4).
- Decide which ABHR, lotion and soap products will be tested during the Hands-On Product Test (Step 3).

Step 3 – Conduct the Hands-On Product Test (*Suggested for Testing ABHR, Lotion, and Soap Only)

- Invite staff members from different groups (e.g. nursing, medicine, allied health, housekeeping, and facilities) to participate in blinded testing of shortlisted products.
- Conduct the Test
 - Replace or cover manufacturer names and logos with new labels (e.g. A, B, C) to make them unidentifiable.
 - Instruct each participant to consider the product and dispenser qualities (see Table 1 for product and dispenser qualities) while evaluating the products.
 - When testing ABHR, ask staff to wash their hands with soap and water in between products to remove any residue. Washing with soap and water should also be done when testing different lotions.
 - Ask staff to state their product preference and collect this data using Figures 5 to 7.

Step 4 – Conduct a Trial

- Trial the preferred product(s) on selected units with different users for at least two to three weeks.² If more than one product is being trialed, a period with the routine product should be used between trials.
- Instruct staff to use the products as needed so that they can evaluate it under realistic situations.
- Use the most appropriate dispensers, brackets, or holders and container sizes available from the vendor considering space limitations on the unit.
- After the trial period, invite staff to share any issues they may have concerning each product.

Step 5 – Select Products for Purchase

- Analyze data from Steps 2 4.
- Consider product preferences of different staff groups.
- Select one ABHR, lotion and soap product for standard use across the facility.
- Select the dispensers, brackets and mounts, and container sizes available from the vendor.
- Select an alternative ABHR, lotion and soap product for staff with allergies to standard products.

Figure 1 – Preliminary Evaluation Form – ABHR

	Preliminary Evaluation Form – ABHR
ABHR ID	Product Name and Manufacturer
A	
В	
С	
D	
E	

Preliminary Evaluation Form – ABHR

Place a " \checkmark " where products meet the recommendations.

				ABHR ID					
Recommen	Recommendations				D	E			
	rug Identification Number (DIN) or Natural Product Number om Health Canada***								
2. Alcohol	concentration 60-90%								
on 3. Dries af	ter 15 seconds (and not before) of rubbing on hands								
3. Dries af Based of Larctice Based of Larctice A. ABHR is 5. No know	dispensed from a disposable container or bottle.								
۵ ۵ ۵ 5. No knov soap, ai	vn compatibility issues between this ABHR and the lotion, and gloves available at the facility								
6. Contain	s emollients								
	es a volume of ABHR that is sufficient with one to two squirts								
	er design (i.e. shape, colour, general appearance) differs from rrently used in organization								
	er design (i.e. shape, colour, general appearance) differs from irrently used in organization								
ਜ਼ (i.e. soa	er design accommodates ABHR replacement containers only p and/or lotion replacement containers cannot fit into the ispenser)								
II. Remain	ng ABHR level clearly visible in regular lighting at a minimum 1cm) directly in front of the dispenser or bottle								

Figure 2 – Preliminary Evaluation Form – Lotion

	Preliminary Evaluation Form – Lotion				
Lotion ID	Product Name and Manufacturer				
А					
В					
С					
D					
E					

Place a " \checkmark " where products meet the recommended product and dispenser qualities.

				Lotion ID					
	Re	commendations	Α	D	E				
d on actices	1.	Lotion is dispensed from a disposable container or bottle							
Based on Best Practices	2.	No known compatibility issues between this lotion and ABHR, soap, and gloves available at the facility							
	3.	Dispenses a volume of lotion that is sufficient with one to two squirts							
inciples	4.	Dispenser design (i.e. shape, colour, general appearance) differs from ABHR currently used in organization							
Based on Factors Principles	5.	Dispenser design (i.e. shape, colour, general appearance) differs from soap currently used in organization							
Ba: Human Fac	6.	Dispenser design accommodates lotion replacement containers only (i.e. ABHR and/or soap refill containers cannot fit into the ABHR dispenser)							
T	7.	Remaining lotion level clearly visible in regular lighting at a minimum of 2ft (61cm) directly in front of the dispenser or bottle							

Figure 3 – Preliminary Evaluation Form – Soap

Preliminary Evaluation Form – Soap				
Soap ID	Product Name and Manufacturer			
А				
В				
С				
D				
E				

Place a " \checkmark " where products meet the recommended product and dispenser qualities.

					Soap ID					
	Re	commendations	Α	D	E					
Based on Best Practices	1.	No known compatibility issues between this soap and the ABHR, lotion, and gloves available at the facility								
	3.	Dispenser dispenses a volume of soap that is sufficient with one to two squirts								
inciples	4.	Dispenser design (i.e. shape, colour, general appearance) differs from ABHR currently used in organization								
Based on Factors Principles	5.	Dispenser design (i.e. shape, colour, general appearance) lotion currently used in organization								
B Human Fa	6.	Dispenser design accommodates soap replacement containers only (i.e. ABHR and/or soap refill containers cannot fit into the ABHR dispenser)								
	7.	Remaining soap level clearly visible in regular lighting at a minimum of 2 ft (61cm) immediately in front of the dispenser or bottle								

Figure 4 – Preliminary Evaluation Form – Glove Box Holders

Preliminary Evaluation Form – Glove Box Holders				
Glove Box Holder ID	Product Name and Manufacturer			
A				
В				
С				
D				
E				

Place a " \checkmark " where products meet the recommended product and dispenser qualities.

				Glove	Box Ho	lder ID	
	Re	commendations	Α	В	С	D	E
nciples	1.	Glove box holders hold multiple glove boxes					
Based on I Factors Principles	2.	Glove box holders have dividers to separate glove boxes					
Human	3.	Glove box holders have labels (S, M, L) on them or a place for these labels					

Table 1 – Qualities to Consider in Hands-On Product Testing

Product Qualities	Dispenser Qualities
ye-free	Product does not clog nozzle
leasant fragrance or fragrance- ee	Product does not drip from nozzle
ittle to no residue left on hands	Only one hand is needed to get product from bottle/dispenser
ands are not left feeling greasy For Lotion Only)	

Figure 5 – Hands-On Product Testing Form – ABHR

	Participant Information			Preferred Product			
No.	Role	Department / Unit	Α	В	С	D	E
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

Hands-On Product Testing Form – ABHR

Figure 6 – Hands-On Product Testing Form – Lotion

	Participar	nt Information		Prefe	erred Pr	oduct	
No.	Role	Department / Unit	A	В	С	D	E
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
		Total	:				

Hands-On Product Testing Form – Lotion

2 - 43

Figure 1 – Hands-On Product Testing Form – Soap

	Participant Information			Prefe	erred Pro	duct	
No.	Role	Department / Unit	Α	В	С	D	E
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
		Total	:				

.... _ _ . _ -_

Label Design Guide

Look-alike products are different products that look similar in terms of size, shape and/or colour. Problems that can result from the use of look-alike products include:

- Extra time spent differentiating products.
- Mixing up products when reaching for a product. For example, a staff member may inadvertently reach for a lotion dispenser when desiring ABHR.
- Mixing up products when refilling a dispenser or holder. For example, a housekeeper may inadvertently place an ABHR container in a soap dispenser.

If your ABHR, soap, and lotion products look-alike, re-label your products using the Product Label Design Guide found in Table 2. Note that the label used must be waterproof so that its surface can be wiped down whenever surfaces are cleaned.

Label Feature	Design Recommendation
	Keep it simple!
	For ABHR labels, use the term "Hand Sanitizer" (or Hand Rub) as ABHR is not often used in everyday language.
Word(s) or Message	For lotion labels, use the term "Hand Lotion". It is important to include "Hand" as your facility may have body lotions available for patient use. You may also wish to include, "Does not contain sanitizer" or "Contains sanitizer" as lotions are available that contain ABHR.
	For glove box sizes, use S, M, and L as these are commonly-used acronyms for the terms, Small, Medium, and Large.
Colour	Use pink for soap, yellow for lotion, and blue for ABHR. [†] Is selecting colours other than pink, yellow, and blue, be aware that staff, patients, and visitors may be colour-blind so avoid labels that require differentiation between red and green.
	Ensure that the colours you select provide a high degree of contrast between fonts and background colour.
Font	Use sans-serif fonts (e.g. Arial, Verdana) as these fonts are clearer to read from a distance than serif fonts (Times New Roman). ⁶
Font size	Font size should be selected so that letters can be easily seen from a distance of at least 1 metre. ⁷
	Should indicate whether or not water is required.
Diagram	A diagram that includes bubbles should only be used for soap.
Shape	Use different shape labels for different products.

[†] These colours were selected for soap, lotion, and ABHR based on staff focus groups included in the Hand Hygiene and Human Factors Project for Healthcare Organizations. Pink was identified for soap since soap dye is often pink. Yellow was identified for lotion as lotions are commonly a white-yellow colour. Blue was selected for ABHR as it is an alternative to cleaning with water, which is universally associated with the colour blue.

References

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