

Point of Care Hand Hygiene: Knowledge, Attitudes and Practices of Canadian and United States Healthcare Personnel

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BACKGROUND

According to the World Health Organization (WHO), the point of care (POC) is the place where the patient, healthcare worker and patient care comes together. Compliance with WHO guidelines include access to a hand hygiene product within arm's reach of the POC. While Canadian hand hygiene programs use the WHO hand hygiene moments framework, United States (US) hospitals reference the Centers for Disease Control and Prevention guidelines that don't use the terms hand hygiene moments or POC. In Canada, published hand hygiene guidelines support the provision of alcohol-based handrub at the POC as a best practice to enable healthcare workers compliance with the 4 Moments for Hand Hygiene. This study was undertaken to determine if differing guidelines impact POC knowledge, attitudes and self-reported practice.

METHODS

Canadian and US frontline physicians and nurses were invited to complete an anonymous 32 question online survey of their knowledge, attitudes and practices about POC hand hygiene. Eligibility to complete the survey included at least 50% of time spent providing direct patient care. A paper version of the survey was distributed to infection preventionists (IPs) at 2014 national IP conferences.

RESULTS

Three-hundred and fifty frontline healthcare workers and 173 IPs completed the survey.

Product Preference

There was a statistically significant difference between Canadian and US frontline workers with more Canadian workers preferring soap and water over alcohol-based handrub (ABHR). In contrast, both Canadian and US IPs preferred ABHR. For frontline workers, skin health issues were the top 3 reasons for preferring soap and water over ABHR.

Figure 1: Product Preference

Agree / Strongly Agree	Canada	United States
Soap & Water	<ul style="list-style-type: none"> All workers 54% Physicians 50% Nurses 57% IPs 32% 	<ul style="list-style-type: none"> All workers 47% Physicians 39% Nurses 55% IPs 32%
ABHR	<ul style="list-style-type: none"> All workers 28%* Physicians 35% Nurses 23% IPs 54% 	<ul style="list-style-type: none"> All workers 43%* Physicians 53% Nurses 33% IPs 56%

*Statistically significant difference, p = .002

POC Knowledge

Canadian IPs were much more familiar with POC hand hygiene. While Canadian workers had greater knowledge than US workers regarding hand hygiene moments (p<0.001), there was no difference in their POC knowledge. Surprisingly, 21% of frontline Canadian workers indicated little or no knowledge about POC hand hygiene.

Figure 2: Knowledge

Familiarity	Canadian Frontline Workers					US Frontline Workers				
	Very familiar	Somewhat familiar	Neutral	Not very familiar	Never heard of them	Very familiar	Somewhat familiar	Neutral	Not very familiar	Never heard of them
Point of care hand hygiene	37%	33%	9%	11%	10%	31%	33%	13%	10%	14%
Familiarity	Canadian IPs					US IPs				
	Very familiar	Somewhat familiar	Neutral	Not very familiar	Never heard of them	Very familiar	Somewhat familiar	Neutral	Not very familiar	Never heard of them
Point of care hand hygiene	88%*	11%	0%	2%	0%	45%*	24%	10%	12%	10%

*Statistically significant difference

POC Beliefs

The value of POC products for increasing hand hygiene compliance, protecting patients and staff and preventing infections scored high among all respondents. However, the provision of hand hygiene products at the POC as part of a facility's hand hygiene policy was acknowledged by only 59% of Canadian IPs and far fewer (28%) US IPs.

Figure 3: Point of Care (POC) Beliefs

Which do you believe to be true regarding HH products at the POC?	Canada		United States	
	Frontline Worker	IP	Frontline Worker	IP
Increases HH compliance	79%	87%	85%	89%
Protects patients	88%	83%	87%	83%
Protects staff & self	87%	87%	88%	80%
Reduces infection rates	88%	80%	81%	76%
Meets facility policies	61%	59%*	66%	28%*

*Statistically significant difference

Location for ABHR

Greater than 50% of all respondents agreed or strongly agreed they would be more likely to clean their hands if ABHR was closer to the patient. Frontline workers in Canada and the US ranked better locations for ABHR in the identical order. However, IPs had different opinions regarding where ABHR should be located.

Figure 4: ABHR Location

Better location for ABHR at the POC	Canada		United States	
	Frontline Worker	IP	Frontline Worker	IP
Wall dispenser within 3 ft. of patient	77%	54%	77%	62%
Foot of bed	43%	35%	42%	29%
Bedside table	38%	54%	38%	38%
Computer on wheels	29%	42%	35%	45%
Transport cart	19%	40%	27%	27%
Bedrail	16%	40%	25%	30%

CONCLUSIONS

- More than 50% of frontline Canadian workers preferred soap & water over ABHR
- IPs and frontline workers believe that HH products at the POC protect patients and staff, improve hand hygiene and prevent HAIs
- Frontline workers from both countries agree on better locations for hand hygiene products at the POC that differ from the opinions of IPs
- Frontline healthcare worker knowledge about hand hygiene moments did not carry over to knowledge about POC hand hygiene
- Canadian IPs are significantly more knowledgeable about POC hand hygiene, but this knowledge did not transfer to frontline healthcare workers

LESSONS LEARNED

- Healthcare worker education regarding the science supporting ABHR as the preferred method of hand hygiene should continue
- ABHR product selection should address skin health concerns raised by frontline workers
- Facility hand hygiene policies should describe the POC concept and include the provision of ABHR within the patient zone
- Decisions regarding the location of ABHR at the POC should include input from frontline workers
- To close the gap in understanding POC hand hygiene, practice guidelines, such as hand hygiene moments, should be linked to the POC concept

NEXT STEPS

Closing the gap in understanding POC hand hygiene starts here.

Figure 5: ABHR Options at the POC within the Patient Zone

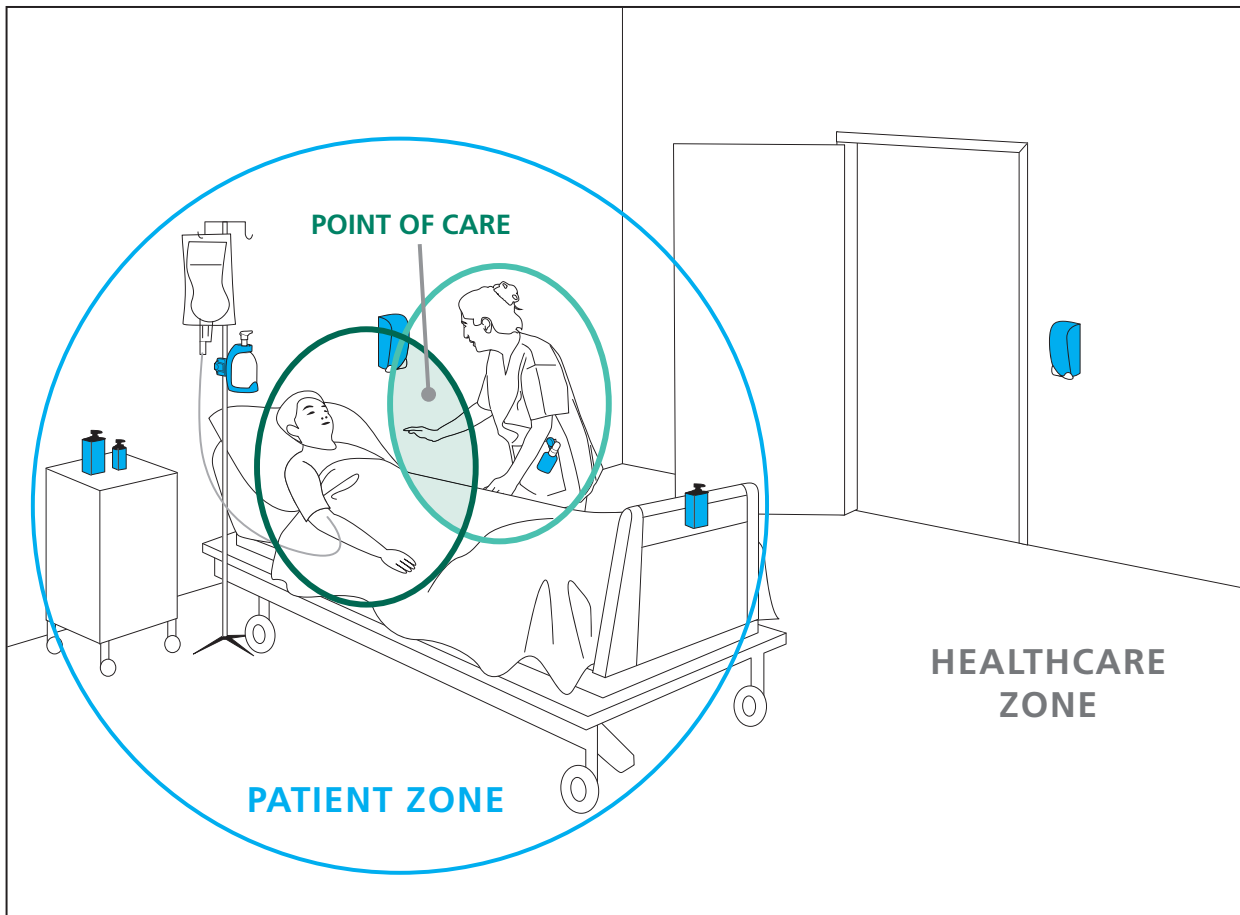


Figure 5 based on the 'My 5 moments for Hand Hygiene', URL: <http://www.who.int/gpsc/5may/background/5moments/en/index.html>
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