Improving Hand Hygiene Compliance at the Point of Care

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Executive Summary

Hand hygiene has clearly been established as the number one way to prevent healthcare associated infections (HAIs). Both the Centers for Disease Control and Prevention (CDC) 2002 Hand Hygiene Guideline and the World Health Organization (WHO) 2009 Guidelines on Hand Hygiene in Healthcare clearly define when healthcare workers should clean their hands. It could be difficult to implement these hand hygiene opportunities if alcohol based hand rub (ABHR) is not conveniently located within reach for the healthcare worker. Point of Care hand hygiene provides a solution to this problem and potentially helps reduce HAIs. This article defines Point of Care hand hygiene and provides rationale for why it should be considered an important part of the healthcare hand hygiene program.
Introduction:

Studies have suggested that healthcare workers (HCWs) have an average of 8-20 hand hygiene opportunities per hour depending on the intensity of patient care required. Those opportunities are described in the 2002 CDC Hand Hygiene Guideline and the World Health Organization’s Five Moments for Hand Hygiene. The Five Moments for Hand Hygiene include:

- Before touching a patient
- Before a clean/aseptic procedure
- After body fluid exposure risk
- After touching a patient
- After touching a patient’s surroundings

Watching healthcare personnel work flow patterns, it becomes apparent that these moments which require hand hygiene do not always happen when a hand hygiene dispenser is within reach. For these moments, Point of Care hand hygiene is the practical solution. Point of Care, as defined in the World Health Organization (WHO) Guidelines on Hand Hygiene in Health Care, is “The place where three elements come together:

- the patient,
- the healthcare worker, and
- care or treatment involving contact with the patient or his/her surroundings (within the patient zone).”

The WHO defines the patient zone as a concept related to the “geographical” visualization of key moments for hand hygiene. It contains the patient and all the surfaces that are touched by or in direct physical contact with the patient, such as bed rails, bedside tables, bed linens, infusion tubing or other medical equipment. Surfaces frequently touched by HCWs, such as monitor buttons and knobs, are also considered part of the patient zone.

Hand Hygiene Accessibility:

The CDC also supports this concept of accessible hand hygiene products as stated in the CDC Hand Hygiene Guideline administrative measures recommendations:

“To improve hand hygiene adherence among personnel who work in areas in which high workloads and high intensity of patient care are anticipated, make alcohol-based hand rub available at the entrance to the patient’s room or at the bedside, in other convenient locations, and in individual pocket-sized containers to be carried by HCWs.” The CDC Hand Hygiene Guideline also recommends that as part of a multidisciplinary program to improve hand hygiene adherence, HCWs should be provided with readily accessible alcohol-based hand rub products. These recommendations are administrative measures rated Category IA, which means they are strongly recommended for implementation, and strongly supported by well-designed experimental, clinical or epidemiologic studies.
Point of Care Hand Hygiene:

Accessibility relates to the immediate accessibility or inaccessibility to hand hygiene products when they are needed. It includes point of care, but also addresses dispenser and product placement throughout the facility. Accessibility is recognized as an important element of a successful hand hygiene program by the recent Joint Commission Center for Transforming Healthcare Lean Six Sigma Hand Hygiene project. In a root cause analysis, ineffective placement of dispensers or sinks was identified as a key cause of failure to clean hands. In the report of the project, one hospital discussed the importance of having gel in the “pathway of the practitioner and their work.” The chief medical officer from another hospital who participated in the project stated “If you don’t make it convenient right there at that second, no one is going to go around the corner and wash their hands.” He also stated, “It must be available in the flow of what the employee is doing.”

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Some examples of when Point of Care hand hygiene is needed include:

• The Post Anesthesia Care Unit (PACU) or Recovery Room often does not have walls, but curtains separating patients. There is no place to hang a hand sanitizer dispenser, and the wall at the head of the bed is filled with suction canisters, oxygen apparatus and monitors. Hand sanitizer attached to the patient’s bed or cart allows the HCW to remain hand hygiene compliant. A similar scenario could take place in some emergency departments which do not have individual patient rooms, and the patients are separated by curtains.

• The bedside nurse is performing a complex dressing change. There are many moments during the procedure when hand hygiene is indicated. A hand sanitizer dispenser is rarely within reach of the patient’s bed. For safety reasons, the nurse must put the bedrail up and walk away to the closest dispenser to clean her hands. Upon returning to the bedside she contaminates her hands putting the bedrail down again. To be truly compliant, the process becomes a vicious cycle. How much easier and efficient it would be to have hand sanitizer at the point of care.

• The hospital transporter moves patients throughout the hospital. For example, he takes patients from the PACU to the nursing unit, or from the nursing unit to radiology or physical therapy. There are many potential moments during the interaction when hand hygiene could become necessary. The nurse may need to accompany the patient to his destination and stay with him, depending upon the patient’s acuity. Having hand sanitizer attached to the patient’s cart makes it easy for the nurse and transporter to be compliant with hand hygiene and care for the patient.

• For the safety of patients in a psychiatric or chemical dependence unit, it might be policy to not have ABHR dispensers on the walls. The nurse is still expected to deliver the same standard of care, but is challenged to be hand hygiene compliant without accessible products. Often for these situations it makes sense to provide staff with their own individual small bottles of hand sanitizer which they carry in their pockets, referred to as personal carriage.
Although there are not many studies currently available about the impact of Point of Care hand hygiene, one study showed that the implementation of education/feedback intervention, and the introduction of alcohol based hand rub with dispenser access ratio increased to one dispenser per patient, yielded a statistically significant improvement in hand hygiene compliance rates (23% to 48%)⁸. In another study in Norway hand sanitizer was placed between beds, on respirators, in staff rooms, disinfection room, kitchen and other places where HCWs found it convenient. The results showed that the usage of ABHR significantly increased, and infection rates declined, especially in units with higher baseline infection rates⁹.

In a summary discussion of the impact of hand hygiene on the skin of healthcare personnel, Larson et.al. (2006) suggest practical considerations in selecting hand hygiene products that include “for hand rubbing, dispensers should be near the point of care. The time required for a staff member to leave a patient’s bedside, go to the sink, and wash and dry their hands before attending to the next patient is a deterrent to frequent hand cleansing. In contrast to conventional sinks used for handwashing, dispensers for ABHR do not require plumbing and can be made available adjacent to each patient’s bed and at many other points of patient care¹⁰.”

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Conclusion:

Hand hygiene products alone will not improve hand hygiene compliance. Success depends on a multimodal approach that includes education, measurements, feedback, reinforcement, administrative support, accountability, as well as accessible hand hygiene products at the point of care. The ultimate goal is to reduce healthcare associated infection, and point of care hand hygiene can become a key factor in achieving that goal.
Reference List


Biography

Jane Kirk is the Healthcare Clinical Manager for GOJO Industries, and is responsible for bringing the clinical perspective to our Acute Care and Long-Term Care businesses. Prior to joining GOJO in 2008, she was Director of Infection Control at a 600+ bed hospital in Northeast Ohio where she initiated a robust hand hygiene program. Jane’s experience in nursing also includes Public Health, Emergency Nursing, Critical Care, Ambulatory Nursing, and Clinical Instructor at Walsh University in Canton, Ohio. Jane holds a master’s degree in Nursing from Walden University and an undergraduate from University of Detroit Mercy.

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