GOJO

HAND HYGIENE TIMES

Your Canadian resource for the latest news in effective infection control program development and best practices.

Issue 1 Volume 5

Electronic Compliance Monitoring

Kathy Cunningham, RN, BSEd, CNN

For over a decade, hospitals have been measuring hand hygiene compliance among healthcare workers. Healthcare organizations seeking accreditation in Canada have had to evaluate hand hygiene compliance since 2009.[1] According to the Canadian Patient Safety Institute hand hygiene remains the primary means to reduce HAIs and the spread of antimicrobial resistant organisms.[2]

In spite of the time and resources required to measure hand hygiene compliance using direct observation, compliance with hand hygiene protocols by healthcare providers has been unacceptably low at 20% to 50%.[3-5] Compliance can be defined as leveraging technology, products and clinical interventions to drive sustained improvements in hand hygiene compliance, thereby reducing the incidence of HAIs, reducing the cost of healthcare and improving patient outcomes. These three features work synergistically to create a hand hygiene program with the ultimate goal of sustained improvement in hand hygiene and fostering a culture of patient safety.

The most commonly used method to measure hand hygiene compliance today in healthcare settings is direct observation, currently considered the gold standard in hand hygiene compliance monitoring.[6] Direct observation involves watching hand hygiene practices and proactively recording hand hygiene opportunities and actions, based upon the recommendations as described in the World Health Organization Guidelines on Hand Hygiene in Health Care.[7]

While there are some advantages to direct observation, it is difficult to rely on this method for accurate compliance metrics for reasons such as selection bias, the Hawthorne Effect, limited visibility behind the door/curtain and the inability to get objective data from all patient care units/shifts. In addition, this method often requires a significant amount of time to collect, count and prepare the data for presentation.

Electronic compliance monitoring is a technological consideration for measuring hand hygiene practices in healthcare. According to the World Health Organization, promising innovative electronic systems for the automatic monitoring of hand hygiene compliance are now available and can significantly facilitate data collection.[8] Most of these systems are designed to collect data in an unbiased way, 24/7, and provide real time dashboards for immediate feedback to healthcare workers. There are several types of electronic compliance monitoring systems available. While there are a variety of technologies used in these systems, many of them perform similar functions—they generate a numerator (hand hygiene events), denominator (hand hygiene opportunities) and then interpret and display the compliance rate in a series of dashboards.

An activity based monitoring system functions so that all who enter or exit a patient room are monitored for hand hygiene compliance. This provides a valuable opportunity to engage and educate patients and visitors on the importance of their hand hygiene.

Another compliance monitoring system offers a module that attaches to a hospital's Real Time Locator System (RTLS). Using the existing IT infrastructure, specified healthcare providers wear a RTLS badge which records "wash in/ wash out" opportunities and wash events.

As important as measuring hand hygiene compliance is, the approach taken by the hospital once the data is collected is equally important. Multimodal hand hygiene programs acknowledge the importance of feedback when attempting to improve compliance.[9]

Although electronic hand hygiene compliance systems are an emerging field, there is much hope that the time and resources saved by using the technology will enable the Infection Control Practitioner to provide valuable hand hygiene teaching and coaching to healthcare workers with the ultimate goal of increasing compliance, decreasing HAIs and improving patient outcomes.

THAT'S a FACT!

A 1.0% increase in hand hygiene compliance resulted in annual savings of $39,650

Source: To a 200-bed hospital. Cummings KL, Anderson DJ, Kaye KS. Hand hygiene noncompliance and the cost of hospital-acquired methicillin-resistant Staphylococcus aureus infection. Infection Control and Hospital Epidemiology, April 2010.

Product Feature

GOJO® SMARTLINK™ HAND HYGIENE SOLUTIONS
The Right Components to Build and Sustain Improvement

GOJO SMARTLINK™ uses state-of-the-art smart technology as the focal point and linkage to a package of critical components designed to reduce infections due to hand hygiene non-compliance.

This comprehensive solution is **built around four fundamental components** that work together to help significantly improve and sustain your hand hygiene compliance rate.

Four Fundamental Components

INNOVATIVE MEASUREMENT TOOLS
A better way to manage and modify performance

EXPERT, CLINICIAN-BASED SUPPORT
Partner with you to implement industry best practices

ADVANCED DISPENSERS
Optimally designed for compliance improvement

SUPERIOR PRODUCTS
Formulated for high-compliance environments

For over 65 years, GOJO has been a leader in the areas of infection control and skin science. We invented PURELL® Instant Hand Sanitizer and advanced the science of hand hygiene. And we know that hand hygiene compliance monitoring can reduce hospital-associated infections (HAI), saving lives while reducing the costs associated with infection prevention. That is why GOJO has made long-term investments in electronic monitoring technology. After rigorous testing in hospitals involving hundreds of thousands of logged opportunities and events, we're proud to provide GOJO® SMARTLINK™ Hand Hygiene Solutions.

For more information on GOJO® SMARTLINK™ Hand Hygiene Solutions contact us at smartlink@gojo.com.

GOJO offers new technologies, processes and support to improve upon hand hygiene compliance rates.

Direct Observation Tools - Many infection control practitioners already use iScrub, a cost-free touch application for Apple devices used to facilitate the collection of observed hand hygiene replacing traditional pen and paper. SMARTWATCH™ a GOJO SMARTLINK Hand Hygiene Solution is a free web-based tool developed with the University of Iowa's Computational Epidemiology Group that will allow users to automatically upload, visualize, and analyze their Direct Observation metrics, collected with iScrub.

Community Based Electronic Compliance Monitoring -
The GOJO SMARTLINK™ Activity Monitoring System is a community-based hand hygiene compliance solution that is economical and easy to install and maintain. The system provides real-time, objective compliance data, 24/7, in an easy-to-interpret dashboard. Reports can be generated by floor, unit, or room and customized by date. A poster presented at APIC in 2013 demonstrated a 92 percent improvement in compliance rates in the first 12 weeks[1] utilizing this system.

Individual-Based Electronic Compliance Monitoring –
GOJO SMARTLINK can also work with individual or badge-based electronic compliance monitoring solutions from third-party vendors such as GE, Stanley Healthcare, Hill-Rom, and Centrak.

1 GOJO Pilot presented at APIC 2013. Fort Worth, Texas Hospital. Two units studied June – October 2012.

For details on our product offering, please contact us at healthcare@GOJO.com.

Electronic Compliance Monitoring (references from feature story)

1. Public Health Agency of Canada. (2012). Hand Hygiene Practices in Healthcare Settings. Available at http://www.phac-aspc.gc.ca
2. Canadian Patient Safety Institute Hand Hygiene Challenge (2012). Fact Sheets about Hand Hygiene. Available at http://www.handhygiene.ca/English/Resources/Pages/Fact-Sheets.aspx
3. Vernon MO, Trick WE, Welbel SF, Peterson BJ, Weinstein RA. Adherence with hand hygiene: does number of sinks matter? Infect Control Hosp Epidemiol 2003;24(3):224-5.
4. Berg DE, Hershow RC, Ramirez CA, Weinstein RA. Control of nosocomial infections in an intensive care unit in Guatemala City. Clin Infect Dis 1995;21(3):588-93.
5. Pittet, D. Improving compliance with hand hygiene in hospitals. Infection Control and Hospital Epidemiology 2000;21:381-386.

6,7. World Health Organization. (2009). WHO Guidelines on Hand Hygiene in Health Care. Geneva, Switzerland.

8. World Health Organization. Hand hygiene monitoring and feedback. Published May 5, 2013. http://www.who.int/gpsc/5may/monitoring_feedback/en/index.html. Accessed January 13, 2014.
9. Pittet, D. Improving compliance with hand hygiene in hospitals. Infection Control and Hospital Epidemiology 2000;21:381-386.

Did you know?

A Webinar **"Challenges and Solutions for Measuring Hand Hygiene Compliance"** is now available at http://www.infectioncontroltoday.com/Webinars

There will be an **Electronic Compliance Monitoring Symposium** at the **IPAC 2014 Conference** in Halifax on 5/26/14.

© 2014. GOJO Industries, Inc. All rights reserved.