Protecting the
PATIENT, CAREGIVER, AND THE HEALTHCARE ENVIRONMENT

SC Johnson Professional pursued the best ideas in science, chemistry and fragrance engineering to invent new products that benefit healthcare professionals. We are experts in skincare, cleaning and hygiene solutions. This range incorporates the DebMed Monitoring System and specialized healthcare skincare products along with well-known SC Johnson brands and innovative professional cleaning and hygiene products all designed to:

- HELP REDUCE INFECTIONS
- DECREASE COSTS
- INCREASE PATIENT SAFETY

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A ‘hands on’ approach to reducing HAIs

Hand hygiene. It’s a challenge every hospital, staff member and patient faces dozens of times a day. Do I take the necessary time to handwash when I am supposed to?

Unfortunately, in the current healthcare climate, hand hygiene compliance rates usually average 50 percent or less, meaning a vast amount of avoidable risk is common in healthcare settings worldwide.¹

Studies have shown that hand hygiene compliance plays a critical role in reducing healthcare-associated infections (HAIs). In fact, according to the latest HAI Progress Report from the CDC, when healthcare professionals actively engage in infection prevention measures, including effective hand hygiene protocols, it’s possible to reduce the rates of certain HAIs by more than 70 percent.² Hand hygiene as a tool to prevent HAIs can only be effective when practices are followed consistently.

One question remains: if healthcare facilities and workers already know the critical role proper hand hygiene protocol plays in patient safety, quality care and high-reliability, why is compliance an issue?

In 2015, one of the largest hospital systems in New Jersey made a decision that improved its hand hygiene compliance by 57 percent. Four years later, its hand hygiene compliance rate is near 90 percent, and it has seen a significant reduction in HAIs.³

The Atlantic Health System story

Atlantic Health System (AHS) is one of the largest health systems in New Jersey, serving five million people at more than 400 sites of care, including six hospitals.

AHS was collecting hand hygiene compliance data using the same practice as many other healthcare facilities – direct observation, with the addition of a badge-based electronic hand hygiene compliance system on some units. However, the organization found the direct observation data to be unreliable and overstated due to factors such as auditor bias, small sample size and the Hawthorne effect.

With a goal of reducing overall HAI rates, AHS decided to focus on increasing hand hygiene compliance by implementing a badge-free system that focuses on the World Health Organization’s (WHO) My 5 Moments for Hand Hygiene rather than the traditional “wash in, wash out” methodology. The pilot program began in 2015 in targeted nursing units susceptible to high rates of infection in their hospitals.

After just one year using the badge-free monitoring system, the participating units from the pilot program had not only increased compliance by 46.2 percent, but also saw a strong connection between improvement in hand hygiene compliance and decreased infections.

Due to the success of the pilot initiative, AHS expanded use of the program to each of its six hospitals and achieved a sustained 57 percent improvement over baseline during a 12-month period.

“This system is great for educating our staff on all of the necessary hand hygiene moments and holding them accountable,” said Laura Anderson, MSN, RN, CIC, Director, Infection Prevention, Atlantic Health System. “Employees can see a tangible number demonstrating how well they are doing as a team. Meanwhile, the user-friendly online dashboard and weekly emails make it easy for managers to review reports and provide immediate feedback.”

Over the last three years AHS has experienced impressive results, including:

- **Improved hand hygiene compliance rates.** Since 2015, the participating units have increased overall compliance by nearly 70 percent. Today, AHS is nearing 90 percent compliance using the WHO’s My 5 Moments guidelines.

- **HAI reduction.** By incorporating the feedback from electronic hand hygiene monitoring into its infection prevention strategy, AHS has seen a steady overall decrease in HAIs, including:
  - Decrease in catheter-associated urinary tract infections by 47 percent
  - Decrease in surgical site infections by 58 percent
  - Decrease in *Clostridium difficile* by 64 percent
  - Decrease in methicillin-resistant *Staphylococcus aureus* bloodstream infections by 82 percent

- **Increased teamwork.** Under the previous system, individual staff members were held accountable for their hand hygiene compliance. Since switching to the group-based monitoring system, hand hygiene has become an enjoyable team effort and commitment.

- **Reliable data.** The web-based reporting dashboard provides consistent and easy-to-access data that allows units to identify areas for improvement and encourages hand hygiene conversations among staff, infection preventionists, managers and hospital board and committee members.

“Over the past few years, we’ve worked diligently to understand our hand hygiene habits, identify compliance challenges and implement helpful solutions,” Ms. Anderson said. “We’re incredibly pleased with electronic monitoring and the overall change it has inspired within Atlantic Health System.”
Executive Briefing

AHS’ Key to success: Culture change

Establishing a culture of compliance is important, but maintaining that culture can lead to increased patient safety, improved quality of care, higher reliability, and better clinical and economic outcomes. To understand how AHS was not only able to achieve these results, but maintain them successfully long-term, here's a look at some of its strategies:

• **Top-down commitment:** “One of the greatest drivers for our culture change was that we had senior leadership involved and supportive from the beginning,” Ms. Anderson said. “Implementation was a shared effort at all sites with leadership, infection prevention, nursing, ancillary departments, information technology and facilities.”

Employees are more likely to comply with hand hygiene protocols if they witness hospital leaders doing the same. Encouraging leadership to demonstrate commitment by practicing good hand hygiene as well as regularly communicating its importance to staff can help foster a culture of compliance.

• **Multifaceted safety reviews:** “We regularly review safety protocols with many departments throughout our hospitals to make sure proper procedures are being followed,” Ms. Anderson said. “Whether through improved isolation practices, how culture samples and specimens are handled, or even partnering with our environmental services department, we work very closely with all of our departments to increase awareness and reduce HAIs.”

No matter what department a hospital employee works in, they all have the potential to track pathogens from one room to the next if not thoroughly educated and trained on the dangers of cross contamination.

• **Communication:** “It was vital for everyone to understand that they all had a role in our hand hygiene compliance numbers, and that it was not isolated to one healthcare professional over another,” Ms. Anderson said. “Constant discussion of rates, posting of data and daily discussions in the nursing units was an important part of our efforts to achieve success.”

Multi-level communication works as a means of disseminating important health and safety information. Daily meetings, or “huddles,” to encourage communication between all levels of hospital staff provide opportunities to discuss and report potential safety issues.

• **Friendly competition:** “Each week we set our own goals in the system for where we want our hand hygiene compliance rates and post them on a communal board. No one wants to be the unit that didn’t make the weekly goal, so it created a bit of friendly competition between units. Our staff had fun with it.”

Electronic monitoring systems provide reliable data that, when shared with healthcare staff, can help them visualize the direct impact hand hygiene has on lowering incidences of infection. The data also encourages dialogue and can complement the use of observations for real-time coaching and feedback, delivering sustained performance over time.

**Electronic monitoring - Why the DebMed System works**

Hospitals work hard to comply with The Joint Commission, WHO and CDC guidelines for hand hygiene, but when it comes to measuring performance, most hospitals use anecdotal direct observation methods, and usually only during room entry and exit.

The DebMed system is the first and only research-based, badge-free system that measures hand hygiene performance during direct patient care and provides accurate compliance scores based on all WHO My 5 Moments.

Another peer-reviewed study, using the data from the DebMed System, found a significant correlation between unit-specific improvements in hand hygiene compliance and a reduction in MRSA infection rates.

The way the system works is very simple: All dispensers, of any brand, are monitored to record hand hygiene events. The data is transmitted wirelessly to a secure offsite server, with no integration with hospital Wi-Fi or IT infrastructure. The reliable and validated monitoring system then compares the number of actual events to the number of opportunities based on each specific unit’s patient needs to report a hand hygiene compliance rate.

**Change your culture**

A high-performing team – in any endeavor, not just healthcare – needs regular, objective, accurate and actionable feedback to continuously improve performance. Whether your facility is a major regional health system, an academic medical center or a small community hospital, electronic hand hygiene monitoring systems and the many benefits they provide allow you to significantly improve hand hygiene performance in your facility and sustain it over time.

**Acknowledgement:** The testimonials and clinical outcomes referenced above were provided by individuals within hospitals using the DebMed System and SC Johnson Professional products. The results indicated above may also have been the result of implementing multi-modal infection prevention strategies. No consideration has been paid or other financial arrangement has been made with AHS in connection with their participation in this article.

1. [http://jdc.jefferson.edu/cgi/viewcontent.cgi?article=1052&context=healthpolicy-faculty](http://jdc.jefferson.edu/cgi/viewcontent.cgi?article=1052&context=healthpolicy-faculty)
2. [https://www.cdc.gov/hai/surveillance/index.html](https://www.cdc.gov/hai/surveillance/index.html)
3. [Atlantic Health System Outcomes Paper, 2018](http://jdc.jefferson.edu/cgi/viewcontent.cgi?article=1052&context=healthpolicy-faculty)

Content brought to you by the DebMed Hand Hygiene Monitoring System, a product of SC Johnson Professional.

DebMed is the only research-based, badge-free system able to track compliance based on the WHO My 5 Moments for Hand Hygiene. It uses the preferred method of measuring compliance performance of an entire unit, promoting a spirit of collaboration and accountability, and provides actionable feedback for the group without singling out individuals.

To learn how the DebMed System help you create a culture of safety in your hospital visit [www.debmed.com](http://www.debmed.com).
Manual monitoring of hand hygiene is outdated
It's time to upgrade to the clinically proven system more and more hospitals rely on

The DebMed Hand Hygiene Monitoring System:
• Only system proven in a peer-reviewed study to significantly reduce MRSA and C. diff HAIs
• Easy to install with no badges or complicated equipment
• Able to capture 100% of hand hygiene events, based on the WHO 5 Moments and Canadian 4 Moments for Hand Hygiene
• Sustained performance improvement in as few as 90 days

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