



New Technology Achieves  
 92% Hand Hygiene Compliance  
 Improvement Rate  
 at Large Texas Hospital



At a large Texas hospital facing the challenges of improving hand hygiene compliance rates, a combination of new technology and hands-on peer-level support helped achieve a 92% increase in hand hygiene compliance. The successful strategy came from GOJO Industries of Akron, Ohio, and its innovative SMARTLINK™ Hand Hygiene Solutions.

**SMARTLINK is built on a state-of-the-art electronic compliance monitoring (ECM) platform, and includes clinician-based on-site support, superior hand hygiene formulations and advanced-technology delivery systems.**

Electronic compliance monitoring systems, which emerged in the market over the last several years, automatically record and transmit hand hygiene compliance data using different types of technology. Data are then displayed on a dashboard which allows for rapid translation into real-time information, enabling users to act quickly on information and trends that affect patient outcomes.

U.S. hospitals understand the critical need to increase compliance rates.

**It's well documented that 1.7 million patients acquire hospital infections, resulting in some 99,000 deaths annually.<sup>1</sup>**

This, in turn, costs our healthcare system tens of billions of dollars a year and will cost hospitals even more in the near future when the Centers for Medicare and Medicaid Services begins imposing stiff financial penalties for “poor performance,” such as high rates of healthcare-acquired infection (HAI) and excessive readmissions for certain conditions.<sup>2</sup> While the Centers for Disease Control and Prevention and World Health Organization recognize proper hand hygiene as a primary means of preventing HAI, compliance rates at U.S. hospitals are at a woefully low average of less than 50%.<sup>3</sup> This is becoming more and more apparent as these electronic systems are highlighting the current gap that exists when compared to compliance rates as measured by observation. This underlines the urgency in improving hand hygiene compliance rates, which can translate into saved lives.

## **Direct Observation vs. Electronic Compliance Monitoring**

Unfortunately, many hospitals believe they may have compliance rates in the range of 90% and, therefore, may believe they are at a point of diminishing return. Until recently, the “gold standard” for compliance monitoring has been direct visual observation, a method in which a trained observer directly watches hand hygiene behavior and records the number of hand hygiene indications, opportunities and actions. Despite best efforts, this has proven to be an unreliable measurement method for a variety of reasons, including the statistical insignificance of the small number of observations obtained by this method, the inability to observe hand hygiene opportunities across all units and shifts, observer bias and the “Hawthorne Effect” among those being monitored. These reasons contribute to inflated hand hygiene compliance rates and a false sense of confidence in the hand hygiene compliance number being reported. Most hospitals work hard to achieve sometimes only a few hundred observations per month using this labor-intensive method.

**By contrast, ECM systems may record over 10,000 events for a single nursing unit in a one-month period because they are collecting data 24 hours a day, seven days a week.**

While the direct visual observation method does have value for the purpose of assessing root causes of noncompliance, coaching and teaching correct hand hygiene technique, it doesn't provide as much insight into the current state of hand hygiene compliance within the facility when compared to ECM.<sup>4</sup>

The reality is that healthcare today is data-driven. Data around process and outcome measures are used to inform quality initiatives. Leaders within an organization need reliable data to improve clinical practice, operations and financial performance. Today, infection preventionists (IP) spend much of their time collecting and reviewing data to identify HAIs, many of which are now publicly reported. This means after public reporting demands (which take precedence) are met, there is limited time available to spend performing other essential duties, including directly observing healthcare workers' hand hygiene compliance and acting on those

data. Now there are ECM measurement and improvement systems on the market that provide a more complete and representative set of data and reports in real time, allowing an IP's time to be redirected toward meaningful improvement instead of data collection. The best ECM technologies can significantly improve on the measurement and reporting process when compared to direct visual observation. GOJO® SMARTLINK™ Hand Hygiene Solutions was developed following rigorous testing in hospitals, involving hundreds of thousands of logged hand hygiene opportunities and events.

**SMARTLINK technology is seamlessly integrated into GOJO touch-free dispensers, requiring no external power supply or unsightly add-ons.**

Many existing GOJO dispensers can also be retrofitted with the technology. In addition, SMARTLINK works with individual or badge-based ECM from third-party technology providers which may already be installed as part of real-time location systems (RTLS) in a facility for asset, people tracking and other purposes.

Technology without support doesn't drive improvement. The GOJO SMARTLINK compliance solution also includes additional components as part of a multimodal approach to maximize results. Components include SMARTLINK Clinician-Based Support with on-site clinical specialists who engage and energize caregivers with a variety of techniques grounded in Six Sigma methodology. These techniques include observation of healthcare worker behavior to assist with root cause analysis, staff training, performance improvement team facilitation to develop a hand hygiene improvement goal and interventions needed to meet that goal, and regular contact with the clinical leader and team members. GOJO also partners with the facility to optimize placement of PURELL® and PROVON® dispensers and delivery systems, to provide educational and promotional materials to encourage compliance and ensure that leadership was informed of the team goal and progress toward that goal.

## The 92% Achievement

The Texas hospital achieved a 92% increase in compliance rates in just 12 weeks from The GOJO SMARTLINK compliance activity monitoring system that was installed on a medical, surgical and infectious disease unit.

**Clinician-based support was as vital to the success of the project as was the hand hygiene compliance data. A post-study assessment followed to determine that the positive changes were sustained.**

In short, through this combination of innovation and clinical support, SMARTLINK Hand Hygiene Solutions helped improve compliance with hand hygiene, one of the risks contributing to HAIs, which can have significant impact on the quality of care and financial performance of hospitals.

—Tina Magazine  
Director of North American SMARTLINK™ Systems

To learn more about the GOJO SMARTLINK Hand Hygiene System, please visit [www.GOJO.com](http://www.GOJO.com).

## Reference List

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- <sup>2</sup>Fiscal year 2014 IPPS final rule home page. Centers for Medicare and Medicaid Services website. <http://www.cms.gov/Medicare/Medicare-Fee-For-Service-Payment/AcuteInpatientPPS/FY2014-IPPS-Final-RuleHome-Page.html>. Updated February 26, 2014. Accessed April 18, 2014.
- <sup>3</sup>Centers for Disease Control and Prevention. Guidelines for hand hygiene in health-care settings: recommendations of the Healthcare Infection Control Practices Advisory Committee and the HICPAC/SHEA/APIC/IDSA Hand Hygiene Task Force. *MMWR* 2002;51(RR-16):1–45.
- <sup>4</sup>Morgan DJ, Pineles L, Shardell M, Young A, Ellingson K, Jernigan JA, et al. Automated hand hygiene count devices may better measure compliance than human observation. *Am J Infect Control.* 2012;40:955–959.

# A smarter way to measure hand hygiene compliance and help reduce the spread of infection.

## GOJO® SMARTLINK™ Hand Hygiene Solutions

It starts with the technology of electronic compliance monitoring. And it continues with the clinician-based support, advanced dispensers and superior products you won't find anywhere else. Together, these components make up GOJO SMARTLINK Hand Hygiene Solutions. These comprehensive solutions can help you improve and sustain your hand hygiene compliance rate. And ultimately help reduce the spread of infection.



Start making a difference today.  
Email [SMARTLINK@gojo.com](mailto:SMARTLINK@gojo.com) or  
visit [healthcare.GOJO.com/SMARTLINK](http://healthcare.GOJO.com/SMARTLINK).

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