Central Ohio Hand Hygiene Initiative: Reducing Infections, Improving Patient Care

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Executive Summary

A regional, quality-improvement collaborative across 20 central Ohio hospitals, involving hospital quality experts, student nurses, iPads and a focus on hand washing, is making significant improvement in compliance by health care professionals to follow hand-hygiene protocols. These improvements have had a positive impact on health care costs, through reduced incidence of infections. More importantly, the hospitals’ work has improved the care provided to our patients by creating a safer care environment.

The Quality Institute of the Ohio Hospital Association (OHA) has observed and tracked hand-hygiene behavior for several years and has seen an improvement of more than 30 percent among its member hospitals. However, Central Ohio’s clinical leadership wanted to go further, agreeing to work together in an effort to achieve greater and sustained improvements. In August 2010, the Central Ohio Hospital Council (COHC) and 20 central Ohio hospitals partnered with OHA to conduct a multi-observational study of hand-hygiene behaviors during a two-year period. This regional effort had three objectives:

1) assess hospitals’ hand-hygiene compliance through staff surveillance and resource utilization, and review hospital policies and training;

2) provide hospital-specific recommendations to improve hand-hygiene compliance;

3) achieve measurable improvement in hospitals’ hand-hygiene compliance, and improve patient outcomes through fewer hospital-acquired infections.

Over the past two years, central Ohio hospitals have improved their hand-hygiene compliance by 197%, going from a 29% compliance rate in August 2010 to a 86% rate in November 2012.

This success has been achieved due to the hospitals’ ongoing commitment to address hand hygiene in a collaborative way.
Hand Hygiene Compliance: An Overview

Effective hand-hygiene (hand washing) practice has long been recognized as the preferred clinical method to reduce the transmission of infections in health-care settings. Many studies, however, have shown that adherence to hand-hygiene recommendations remains low and that improvement efforts frequently lack sustainability.

All hospitals have rigorous infection surveillance and control programs, including mandated hand washing by employees and visitors, which are required by the federal government and hospital accrediting organizations. However, these programs oftentimes fall short of their goals to improve hand-hygiene compliance, with a national, average compliance rate of about 47 percent.

OHA is working with its member hospitals to improve their rates by assessing hospital staff compliance and providing immediate recommendations on how hospitals can improve by redesigning policies and offering more robust education and training opportunities.
Data Collection: A Unique Approach

To effectively capture staff compliance with hand-hygiene protocols, OHA launched an innovative program, “The Ohio Hospital Association’s Student Nurse Process Observation Program.”

Under the program, OHA contracts with student nurses, who assist in the collection of data related to hand-hygiene practices. Serving as “secret shoppers,” the students are selected, trained and competency tested to work as data gatherers for hand-hygiene compliance by all physicians, nurses and other caregivers who enter patient rooms. The observers record compliance with the following:

- Hand washing for a minimum of 15 seconds with soap and water or alcohol-based solutions;
- Hand washing both before entering the patient’s room and upon exit of the room.

Since August 2010, student nurses have made more than 85,000 observations among the 20 central Ohio hospitals participating in the program.

The data for these real-time observations is entered electronically onto an iPad application, which was developed by the OHA specifically for this quality-improvement initiative. The data is quickly aggregated for the hospital, and allows the hospital to compare its compliance rate with other participating hospitals. A unique feature of the application is that individual hospital units or floors receive same-day feedback on staff compliance so effective interventions can quickly be implemented.
Instituting Cultural Change Through Collaboration

Over the past two years, central Ohio hospitals have shown sustained improvement in their hand-hygiene efforts, primarily due to their willingness to collaborate and their continuous focus on the issue.

Each quarter, the chief medical officers and other clinical leaders from each of the 20 participating hospitals meet to review compliance data and share best practices on how to achieve and sustain high compliance rates. Successful interventions include:

- Additional alcohol dispensers, located closer to patient rooms
- Signage for “Wash in/Wash out!” reminders
- Inter-departmental meetings on expected behaviors
- Competitions and rewards for best rates/most improved
- Coaching of associates by chief nursing and medical officers
- Educational video or employee plays/skits

Also, participating hospitals obtained the support of hospital senior leadership, who were committed to showing improvement.

On December 5, 2011, during the National Hand Hygiene Awareness Week, all 20 central Ohio hospitals simultaneously ceased non-urgent operations for a 15-minute focus on eliminating preventable infections through better hand-hygiene practices. During the “Scrub Up! Save Lives!” campaign, hospitals worked collaboratively to increase awareness of the importance of hand washing among associates – and visitors – in combating infections.
Central Ohio Hand Hygiene Initiative: Our Results

Central Ohio hospitals have made significant improvements in hand-hygiene compliance over the past two years.

When the collaborative started in August 2010, hospitals’ compliance with all observed hand-hygiene measures was at 29%.

Over the next 27 months, hospitals accelerated their work, through a collaborative commitment to the issue, and improved hand-hygiene compliance across the community, reaching a rate of 86% in November 2012.

Over the two years of the Central Ohio Hand Hygiene Initiative, participating hospitals have improved their compliance with all hand-hygiene protocols by 197%.

SETTING A HIGHER BAR

When central Ohio hospitals developed the Hand Hygiene project, they agreed to monitor and enforce hand washing of all healthcare workers upon entry into and exit from patient rooms for a minimum of 15 seconds. This standard is more stringent than standards used in national studies, which report on compliance only with hand washing upon entering patient rooms. While central Ohio hospitals’ 29% compliance rate in August 2010 was significantly lower than the national rate of 47%, they were measuring themselves against a more stringent standard than those used in other studies.

Hand Hygiene Compliance
As a result of the Central Ohio Hand Hygiene Initiative, participating hospitals demonstrated additional results:

- More than 300 floor/unit-specific plans were implemented by participating hospitals to improve their hand-hygiene compliance practices;
- All hospitals, even those already high performing, showed improvement and all have sustained that improvement over the past 12 months;
- Compliance rates in the 12 months following the “Scrub Up! Save Lives!” campaign significantly improved and have remained steady, demonstrating a level of sustainability not seen in other hand-hygiene efforts.

**Initiative Summary: Keeping Focused, Not Looking Back**

The success of the Central Ohio Hand Hygiene Initiative has had a positive impact not only on patient care, through reduced incidents of infections, but also on health care costs. Our hospitals are committed to continuing their efforts to improve and sustain their hand-hygiene compliance. The collaboration of central Ohio hospitals in this area has inspired other regions around the state to commit to improving their hand-hygiene efforts.

Physicians, nurses and all health care workers are fighting a never-ending battle against an invisible force. Patients and their families are encouraged to join the front lines of defense against infection. An important part of the health care team, patients, visitors and families should take an active role by asking their caregiver to wash his or her hands and by washing their own hands before entering and after exiting the patient’s room.