

Hand Hygiene Project: Best Practices from Hospitals Participating in the Joint Commission Center for Transforming Healthcare Project

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TRANSFORMING HEALTH CARE THROUGH RESEARCH AND EDUCATION





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Why focus on hand hygiene?

- Health care-associated infections (HAIs) account for approximately 1.7 million infections in U.S. hospitals, with more than 98,000 deaths annually (CDC,2002).
- Hand hygiene is the primary means to reduce HAIs.
- Hand hygiene is the number one patient safety challenge identified by hospitals in the Joint Commission Robust Process Improvement Project.

Hand Hygiene Project

- Sponsored by the Joint Commission Center for Transforming Healthcare
 - Established in 2009 to address health care's most critical quality and safety problems
- Eight hospitals selected to participate
 - Baseline data results, using non-biased hand hygiene observers or secret shoppers, showed hand hygiene compliance much less than previously thought
 - Most hospitals thought their compliance rate was about 70 percent to 90 percent, when it was actually less than 50 percent.
 - All had Robust Process Improvement (RPI) infrastructures, used Lean Six Sigma methodologies, and agreed to follow the same methodology.
- April 2008 – August 2010: hospitals defined and measured hand hygiene, analyzed data, and improved processes and workflow using Lean Six Sigma.

Summary of Results

- Hospitals identified 15 root causes of failure to clean hands and developed targeted solutions for each root cause
- As of August 2010, all eight hospitals reported hand hygiene compliance rates at about 82 percent
- Many of the hospitals reported a decline in HAIs as their hand hygiene compliance rate increased
- Solutions developed by the hospitals are part of the Targeted Solutions Tool (TST), a web-based tool provided free to Joint Commission-accredited organizations

Defining and measuring hand hygiene

- First step was defining hand hygiene - “washing (or cleaning) hands with an alcohol-based foam or gel or soap upon entry and exit of a patient care area or environment”
- Determining how data was collected was critical to the project
- Hospitals used secret observers to collect baseline data and just-in-time coaches to identify barriers to hand washing
 - Just-in-time data was kept separately from baseline observational data to avoid skewing the data

Analyzing Data

- Data analysis identified root causes and pinpointed particular groups that struggled with the problem more than others
- Many root causes were surprising
 - Dietary workers having their hands full while delivering trays of food and thinking that they do not need to wash their hands since not touching patients
 - After culturing everything in the patient environment, the surveillance team discovered that the privacy curtains were colonized with multi-drug resistant organisms in some rooms

Improving Processes and Workflow and Using Technology

- Hospitals used Six Sigma to examine processes and workflow and target solutions
- Main objective was to incorporate hand washing into staff routines while minimizing number of hand washings
- For some, streamlining meant putting hand hygiene items in one place
- Four of eight hospitals used technology to monitor hand hygiene compliance (e.g., Wearing infrared (IR) badge with IR signal to measure performance)

Main Causes and Examples of Solutions

Main Causes	Examples of Solutions
Ineffective placement of dispensers or sinks	Standardize dispensers, increase visibility & place dispensers in workflow
Hand hygiene compliance data not collected/reported accurately or frequently	Use of quality coaches for data collection
Lack of accountability & just-in-time coaching	Goal of 100% compliance is part of evaluations; leaders model behavior & just-in-time coaching
Safety culture does not stress hand hygiene at all levels	Clear policy stipulating number of incidents & action to be taken
Ineffective or insufficient education	Ongoing education, culture staff hands to show how long organisms survive

Main Causes & Examples of Solutions

Main Causes	Examples of Solutions
Hands full	Shelves added to hold items, bundle of supplies in place for admissions
Wearing gloves interferes with process	Changed order of process to “wash hands, gown and then put on gloves”
Perception that hand hygiene is not needed if wearing gloves	Using Six Sigma, minimized number of times food and nutrition staff had to clean hands
Health care workers forget	Visual reminders, changing signage frequently, red lines at threshold of rooms, involving patients/families
Distractions	Visual cues, reminders on badges, positive feedback

Targeted Solutions Tool - Steps

1. Get started – Determine who will be on the team and understand stakeholders in the process
2. Train observers – Give them the tool to collect data and document contributing factors
3. Measure compliance – Collect and enter data
4. Determine factors - Get compliance, analysis, and means charts
5. Implement solutions by analyzing data to identify top 3 contributing factors – For each factor, TST provides implementation guidelines
6. Sustain gains – Rethink the data collection plan and continue to monitor the process

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