Hand Hygiene – Quality Improvement Initiative to Target Zero Healthcare-Associated Infections (HAIs)

<table>
<thead>
<tr>
<th>Organization Name:</th>
<th>Sinai Hospital of Baltimore</th>
<th>Type:</th>
<th>Acute Care Hospital</th>
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</thead>
<tbody>
<tr>
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<td>Title:</td>
<td>Director</td>
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<td>Phone:</td>
<td>410.601.5632</td>
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**IDENTIFICATION:**

It has long been recognized that hand hygiene is the most effective way to prevent the spread of infection, thereby ensuring patient safety. However, the peer reviewed infection prevention and control literature indicates that overall compliance in healthcare facilities is, at best, 40 to 50 percent.

The problem to be solved was how to develop an effective hand hygiene campaign that would improve healthcare worker compliance with hand hygiene tied to reduction in epidemiologically significant organisms such as MRSA and *Clostridium difficile*. We have tried a number of initiatives to improve hand hygiene compliance in the past and have met with limited success because positive behavior change has not been sustained over time.

Through direct observation on individual patient care units, hand hygiene compliance has ranged anywhere from 40 to 100 percent, with an overall compliance of about 40 percent.

**PROCESS:**

A multidisciplinary Hand Hygiene Task Force was convened and led by Infection Prevention and Control to develop a comprehensive hand hygiene program. The Task Force surveyed successful programs to determine best practices. This resulted in a resource binder being developed for the team to use as a reference guide. Then, a compliance action plan was developed that outlined the current status of the hand hygiene program, barriers to success, changes to the measurement tool, communication of results to the frontline, staff knowledge, accountability, and defined goals necessary to drive performance improvement and permanent behavior change. The observation tool was also revised to be more user-friendly. The report was shared with senior leaders and medical staff. In addition to direct education as to why hand hygiene was important, hand hygiene cards for compliance (“Thank you for washing your hands.”) and for non-compliance (“You were observed not performing hand hygiene.”) were also developed and used with staff during observations.

At the same time, in collaboration with the LifeBridge Health Marketing and Community Relations Department, a statewide, public hand hygiene campaign was launched. LifeBridge Health partnered with the Maryland Department of Health and Mental Hygiene and the Baltimore City Health Department to create and execute an unconventional ad campaign that created buzz to get people talking about the importance of washing one’s hands to prevent viral and bacterial infection. Floor graphics, posters, table tents, cafeteria banners, flat screen graphics and screen savers were utilized throughout LifeBridge Health hospitals. Externally, a TV public service announcement, bus shelter and taxicab advertising, social media (Twitter, Facebook, etc.), a Web
site (WashYourHandsMaryland.org) and posters made available to members of the Restaurant Association of Maryland were used to get the entire state involved

**SOLUTION:**

Education alone is insufficient to improve hand hygiene compliance. An integrated system that includes communications, incentives, accountability and regular performance feedback is essential.

Education was provided to staff at the unit level, and the tool and supporting materials were placed on LifeBridge Health’s Intranet for all staff to access.

Using the new hand hygiene observation tool, each unit was required to provide 100 observations per month for an initial period of 6 months. The compliance target was 90 percent or greater for each inpatient care unit.

Hand hygiene measurement is more meaningful to staff when combined with measurements of gown and glove use. Hand hygiene is rarely a “stand alone” activity. Hand hygiene outcomes are shared with frontline staff and senior leaders along with surveillance data for healthcare associated epidemiologically significant pathogens (MRSA and *Clostridium difficile*).

Hand hygiene has been added as a performance measure to all patient care unit dashboards. Sinai Hospital is also participating in the Maryland Patient Safety Hand Hygiene Collaborative, with a goal of 90 percent compliance on all patient care units.

Patients and visitors are included in all hand hygiene education and promotional/awareness activities.

**OUTCOMES:**

As of December 2009, overall hand hygiene compliance stands at 92%.

See attachment for observation tool.

Further supporting material will be presented at the poster session.
<table>
<thead>
<tr>
<th>Person Observed</th>
<th>Opportunity Assessed</th>
<th>Hand Hygiene Observed</th>
<th>Type of Isolation</th>
<th>Compliance with Use of All Required PPE</th>
<th>Corrective Educational Action</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Before patient care</td>
<td>Y / N</td>
<td>A. Contact</td>
<td>Y / N</td>
<td>Y / N</td>
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<tr>
<td></td>
<td>2. Before aseptic task</td>
<td></td>
<td>B. Droplet</td>
<td></td>
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<tr>
<td></td>
<td>3. OTHER:</td>
<td></td>
<td>C. Airborne</td>
<td></td>
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<tr>
<td></td>
<td>A. After body fluid exposure risk</td>
<td></td>
<td>D. None</td>
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<tr>
<td></td>
<td>B. After patient contact</td>
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<tr>
<td></td>
<td>C. After contact with patient surroundings</td>
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**About This New Tool**
1. Based on opportunity analysis rather than before/after observations.
2. Very fast to complete.
3. Can be used in most/all areas.
4. Unidentified observer still used. Observer role must rotate among various disciplines.
5. Acknowledges the importance of linking hand hygiene with contact precautions.
6. Consistent with WHO guidelines

**CODES**
1. Physician (includes House Staff)
2. Physician Support Staff (PA or NP)
3. Nurse
4. PCA
5. EA/EVS
6. RT
7. Radiology
8. PT/OT/ST
9. Transport
10. Dietary
11. Other

*Remember: at least 25 observations are needed for accurate assessment of compliance.*

Rev IPC May 2009
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<thead>
<tr>
<th>Occupation</th>
<th>Time of day/Shift</th>
<th>Unit:</th>
<th>Hand Hygiene Compliance tracker form</th>
<th>Unit:</th>
<th>Hand Hygiene Compliance tracker form</th>
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<tr>
<td>MD</td>
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<td>Nurse</td>
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<td>Other</td>
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