Maintaining a near perfect Hand Hygiene (HH) and Isolation (Iso) Compliance (C) despite high Isolation Density

Carlene A. Muto, MD, MS; Ashley Querry, BS, CIC; Carl Ciccone

Setting

The University of Pittsburgh Medical Center (UPMC) Presbyterian is a 766-bed tertiary care facility affiliated with the University of Pittsburgh Schools of the Health Sciences.

Background

- The Centers for Disease Control and Prevention (CDC) recommends that personal protective equipment (PPE) be worn for patients who require pathogen-specific isolation.
- A recent study “Contact Precautions: More Is Not Necessarily Better” attempted to access whether the proportion of patients in contact isolation is a determinant of compliance by HCP with HH and isolation precautions.
- They concluded that for contact isolation precautions, the 4% burden represented a tipping point for HCW compliance.

- Hand hygiene (HH) is the most important way to prevent healthcare-associated infections (HAI).
- In 7/14, a Just Culture system design to create an environment of accountability for HH practices was implemented.
- HH averaged at 62.7% prior to implementation.
- HH is expected for the World Health Organization (WHO) 5 Moments of patient care.
- ~800 standardized HH Os were collected monthly for 13 months (3/13 – 3/14)

Objective

- The objective of this study was to assess whether HHC is influenced by Isolation Density at UPMC-P.

Methods

Definitions:

- Patient (PT) Days
  - # of days that in-patients are hospitalized
- Contact Isolation/isolated (Iso) Days
  - # of PT Days spent in contact precautions
- # of patients in contact isolation in the unit at the time of O

- Iso D is a better measure of true Iso burden as it takes into account duration
- HH and Isolation Compliance vs Isolation Density

<table>
<thead>
<tr>
<th>Month</th>
<th>ISO Days</th>
<th>HH and Isolation Compliance %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar-13</td>
<td>6471</td>
<td>98%</td>
</tr>
<tr>
<td>Apr-13</td>
<td>6858</td>
<td>95%</td>
</tr>
<tr>
<td>May-13</td>
<td>5935</td>
<td>94%</td>
</tr>
<tr>
<td>Jun-13</td>
<td>6473</td>
<td>98%</td>
</tr>
<tr>
<td>Jul-13</td>
<td>6858</td>
<td>95%</td>
</tr>
<tr>
<td>Aug-13</td>
<td>5935</td>
<td>94%</td>
</tr>
<tr>
<td>Sep-13</td>
<td>6473</td>
<td>98%</td>
</tr>
<tr>
<td>Oct-13</td>
<td>6858</td>
<td>95%</td>
</tr>
<tr>
<td>Nov-13</td>
<td>5935</td>
<td>94%</td>
</tr>
<tr>
<td>Dec-13</td>
<td>6473</td>
<td>98%</td>
</tr>
</tbody>
</table>

Conclusions

- Iso Density remained high throughout the study
- Iso Density had no effect on HHC or IsoC.
- HH and IsoC were both high, often approaching 100%.
- Providers/IP programs should consider the potential for transmission when developing infection control policies/practices.