Objectives

• Describe a quality improvement project focused on nosocomial infection prevention
• Review why simple hand washing is such a powerful tool
Background

- Lourdes Safety Coach Program
  - Goals
    - Promote and reinforce safety behaviors that result in “no harm” to patients, staff and others.
    - Identify department safety concerns and seek resolution with leaders and staff.
Background

- Safety Coach Responsibilities
  - Observation and monitoring of safety behaviors
  - Education of staff
  - Feedback to noncompliant staff
Joint Commission National Patient Safety Goal: Prevention of Nosocomial Infections
Nosocomial Infections

• It is estimated that in any given year 1.7 million patients will get a hospital acquired infection.
• Of these, 99,000 or about 270 patients will die every day.
• The cost burden of nosocomial infections is high.
Nosocomial Infections

• Hands that provide tender loving care to patients, can also be a major source of harm.
Joint Commission National Patient Safety Goal: Prevent Infections

• Use Centers for Disease Control and Prevention or World Health Organization hand cleaning guidelines.

• Set goals for improving hand cleaning.

• Use these goals to improve hand cleaning.
Transmission of infectious Agents

- **Source or reservoir:** healthcare personnel, patients, household members, visitors and inanimate sources (i.e., bedrails)
- **Portal of exit**
- **Portal of entry**
- **Susceptible host:** sick, elderly, presence of indwelling devices, impaired skin
Prevention of Transmission

• Wash hands with soap and water when visibly dirty, soiled with blood or other body fluids, or after using the toilet.
• Soap and water also is preferred after suspected or proven exposure to potential spore-forming pathogens, such as Clostridium difficile.
Prevention of Transmission, cont’d

• In all other clinical situations, use an alcohol-based hand rub (e.g. waterless foam), if hands are not visibly soiled.

• Wash hands with soap and water if alcohol–based hand rub is not available.
When to Wash Hands

• Before and after touching a patient
• Before touching an invasive device used for patient care
• Before handling medication
• After touching inanimate surfaces and objects in the patient’s immediate vicinity
• After removing gloves
How long to wash one’s hands?

• The average time for soap and water is 15 seconds.
• Waterless foam and alcohol–based hand rub require less time.
<table>
<thead>
<tr>
<th></th>
<th>Physician</th>
<th>RN/LPN</th>
<th>PCA/MOA</th>
<th>Rehab</th>
<th>Nursing Student</th>
<th>Environ. Services</th>
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Hypothesis

• If staff is provided with the solution they prefer to use to wash their hands, compliance with handwashing will increase.
Method

• Sample Part 1 - Survey: 31 hospital staff, 5 males and 26 females
  - RNs, physicians, patient care assistants, rehabilitation therapists, respiratory therapists, unit secretaries, environmental services staff, and nursing students
Survey Questions

1. What product do you use to wash your hands on this unit (soap and water, waterless foam-alcohol based, or your own product)?

2. What product do you prefer to use to wash your hands on this unit (soap and water, waterless foam-alcohol based, or your own product)?
Survey Questions

3. What product do you mostly use to wash your hands on this unit (soap and water, waterless foam-alcohol based, or your own product)?
Results – Part 1
What product do you use to wash your hands?

- Soap/Water (5)
- Waterless/Foam (3)
- Other (1)
- Both Soap/Water and Waterless/Foam (22)
What product do you prefer to use?

- Soap/Water (19)
- Waterless/Foam (11)
- Other (1)
- Both Soap/Water and Waterless/Foam (0)
What product do you mostly use?

- Soap/Water (12)
- Waterless/Foam (16)
- Other (0)
- Both Soap/Water and Waterless/Foam (3)
Method

• Sample – Part 2: 31 randomly observed staff members
  - RNs, physicians, patient care assistants, rehabilitation therapists, respiratory therapists, unit secretaries, environmental services staff, and nursing students
Results – Part 2
Observation: Product Actually Used

Frequency

Soap/ Water (12)  Waterless/ Foam (19)
Results – Part 2

• Rationale for selection of cleansing Product
  ▪ Waterless foam
    ▪ Accessibility
    ▪ Ability to use “on the run”
  ▪ Soap & water
    ▪ Less harshness
    ▪ Feeling cleaner
Empirical Outcomes
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<th>Nursing Student</th>
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Seton 1 Symptomatic Catheter-Associated Urinary Tract Infection (CAUTI) Rate

<table>
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<th>Rate/1000 Foley Days</th>
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<tr>
<td><strong>S. Cauti</strong></td>
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<td>Jan-10: 0, Feb: 1, Mar: 0, Apr: 0, May: 0, Jun: 0, Jul: 0, Aug: 0, Sep: 1, Oct: 0, Nov: 0, Dec: 0, Jan-11: 0</td>
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<td><strong>Rate/1000 Foley Days</strong></td>
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<td><strong>National Benchmark Mean (1Q2011)</strong></td>
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Seton 1 Central Line Associated Bloodstream Infection (CLABSI) Rate

- CLABSI
- Rate/1000 Central Line Days
- National Benchmark Mean (1Q2011)
Conclusions

• Congruence between what staff reported using, and what they were observed using.

• Waterless foam used most often by staff, although preference was for soap and water.
Conclusions

• Handwashing is a simple, effective process to decrease nosocomial infections in the hospital.

• When products are made available for staff to wash their hands, handwashing compliance increases, regardless of the preferred product.
Implications for Practice

• If appropriate products are made available for handwashing, staff will use them.

• Periodic monitoring of handwashing reinforces this simple but critical act.