What Works: Successful Strategies from Collaborative Participants

Susanne Salem-Schatz, Sc.D

Massachusetts Coalition for the Prevention of Medical Errors
November 15, 2011
Using the model for improvement to prevent transmission of CDI: How Franciscan Hospital for Children makes it work.
Our Team

Jean Fleurime, environmental services; Mary Fortunato-Habib, administration; Val Conway, nursing; Qi Sheng, pharmacy; Jen Fexis, performance improvement; Deb Iovanna, infection control; Dr. Colin Marchant, infectious disease
PLANNING for Improved Communication of Current Precautions Status

**PLAN:**
- Standardize location of signage
- Store precautions signage in convenient location near/with PPE

**DO:**
- Installed sign holder outside room
- Store one of each precaution signs in each sign holder

**ACT:**
- Reduce size of signs; magnetize signs to attach to door frame
- Reconsider signage storage options

**CHECK:**
- Sign holders too big for available space to accommodate 4 signs per room
- Sign fit well in holders; concern sign holders will break from continual expansion to remove/replace signs
Improve Communication of Current Precautions Status – 2\textsuperscript{nd} cycle

**PLAN:**
- Reduce sign size; magnetize
- Store extra signs in folder attached to precautions cart

**DO:**
- Created 4”X3” print area
- Printed on magnetic sheets
- Placed on metal door frame
- Attached plastic folder to cart; filled with one of each precautions signs

**ACT:**
- Investigate smaller other sign holders
- Create signs to fit

**CHECK:**
- Sign was easily knocked off frame.
- Signs were too small.
Aim: Improve Communication of Current Precautions Status

Improved adherence to current precautions

Cycle 1E: Implement sign holders for all rooms

Cycle 1D: Educate clinical, ancillary, and support staff on new signage

Cycle 1C: Increase size, post in plastic sign holder, test on one room get feedback

Cycle 1B: Reduce size, magnetize for doorframe placement. Test on one room get feedback.

Cycle 1A: Standardize precautions signage location, test on one room, and get feedback.

Delays in precautions implementation

DATA
Use good hand hygiene — because we care.
Improving Environmental Cleaning

**PLAN:**
- Terminally each room at discharge, when patients come off precautions, and at least monthly were applicable with appropriate cleaning agents. i.e. bleach for C-diff, MRSA and VRE

**DO:**
- NM reviews census at the end of each day and identifies a room to be cleaned.
- Staff nurse identifies patient coming off precautions.
- Communicate room number to environmental services (ES).
- Overnight nursing staff prepare room for cleaning i.e. relocate patient, replace dirty equipment with clean equipment.
- ES staff clean room in a.m. with appropriate cleaning agent following checklist.
- Checklist returned to ES office for tracking purposes.

**ACT:**
- Obtain and trial Dispatch cleaning solution.
- Set date for checklist completion; trial with Unit 2 ES.
- ES develop phased plan to clean all rooms with bleach to achieve baseline and C-diff, MRSA and VRE when off precautions.

**CHECK:**
- Late transfers and admissions effect room availability preventing patient relocation; aggressive plan.
- Changes not communicated to ES.
- Bleach mixed when needed by ES; variation in dilution ratio. Floors not cleaned with bleach.
- Checklist in development; no tracking mechanism.
Improving Environmental Cleaning – 2nd Cycle

**PLAN:**
- Obtain premixed bleach cleaner
- Baseline clean all Unit 2 and 3 patient rooms
- Implement daily cleaning checklist

**DO:**
- The Units were closed in sections for construction; upon completion rooms were cleaned prior to reopening
- Tested checklists with one staff

**CHECK:**
- All rooms terminally cleaned as planned
- Checklists contained items not completed during room cleaning
- One daily checklist per room was inefficient use of tool

**ACT:**
- Revised cleaning checklist to reflect actual tasks performed, columns added for each room
Aim: Improve Cleaning Processes

Improved consistency with cleaning practices

Cycle 1A: Terminally clean each medical unit patient room, baseline, after coming off precautions, and at discharge.

Cycle 1B: Implement premixed bleach solution

Cycle 1C: Create cleaning checklists

Cycle 1D: Develop policy for cleaning reusable equipment

Cycle 1E: Educate nursing, housekeeping and respiratory on policy

Variability in cleaning processes

DATA
Franciscan Hospital for Children

Document Type: Policy and Procedure

Category and/or Department: Infection Control

Effective Date: 10/11

Title: Cleaning of Reusable Patient Care Equipment

Policy: IFC065

Approval Date: 10/11
Successful Strategies for CDI Prevention

The WHO, the WHAT and the HOW

Listen for:

• Aims and measures
• Small tests of change
• Creativity and innovation
• Who was involved?
• How do teams pull in front line staff?
• How do leadership supports change?
Making the Most of the Collaborative Opportunity

*How to make it work for you*
Noble Hospital
HA-CDI RATE / 10,000 Patient Days

2007: 6.00  
2008: 10.17  
2009: 5.32  
2010: 3.95  
2011 YTD: 2.75
The exponential power of team and measurement at Falmouth Hospital
Falmouth Hospital CDI Prevention Interventions

- **Environmental Services Support**
  - Magnet Clips to be able to put signs consistently in one location on door frame
  - Covered waste baskets with foot pedals in precaution rooms—much bigger baskets for precaution gowns, etc.
  - New column on housekeeping task list for notifying of precautions for cleaning (had been a problem, especially if someone moved out of a semi-pvt room when need for precautions identified)
  - New microfiber mops for precaution rooms
Falmouth Hospital CDI Prevention Interventions

- Bag and tag all equipment once cleaned (i.e. IV pumps)
- Hand washing signs for Nourishment Kitchen
- Ordered Pediatric size precaution gowns for children visiting
- 0700 and 1500 Time Out around nurses station - Neil Diamond - “Hands, Washing Hands, Reaching Out (Purell), touching me, touching you…..
- CDI Prevention Campaign with education
Project Unit MS 3  Falmouth Hospital Associated CDI Rates 2010

Pre Intervention = 35.0 / 10,000 Patient Days
Post Intervention = 4.0 / 10,000 Patient Days

Interventions Begun 4/2010

HA C. difficle Rate / 10,000 Patient Days
Project Unit MS 3 Falmouth Hospital Associated CDI Rates 2011

2010 Pre Intervention = 35.0 / 10,000 Patient Days
2010 Post Intervention = 4.0 / 10,000 Patient Days
2011 Mar = 43.2

MS 3 HA C. difficile Rate / 10,000 Patient Days 2011

March - Nurse Champion leaves

FH MS 3 Hospital Associated difficile 2011

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How did your team use the structure of the Collaborative to move your work forward?
Hand Hygiene
Award winning team at Tewksbury: 
*It’s time for the Themmies!*
Push It Tewksbury

http://youtube.com/watch?v=nKqGq4naQGk
“No Butts About It, Let’s Wipe It Away…..”

Debra Berube MS RNC CIC
Director of Infection Control & Prevention
St Vincent Hospital
Worcester MA

Abridged from APIC NE
October 13, 2011
Goals:

• **Decrease** hospital acquired C.Diff by 25% by the end of 2011. Will set new goals for 2012.

• **Decrease** overall hospital acquired infections

• **Increase** hand hygiene rates to ??? 100%

  Continue to **engage** front line staff regularly

• Increase patient **education** regarding:

  transmission, prevention, empowerment, etc.

• Maintain and increase effective **environmental** cleaning

  • Bleach wipes in ICU and other areas when appropriate

  • Cleaning is **everyone's** responsibility, not just “housekeeping”

• Maintain **IP visibility** on patient care units (this is NEVER ending!!)
Hand Hygiene Program
(continued)

• Hand hygiene monitoring
  • 46 hand hygiene observers
  • each observer has monthly assignment to specific units
  • minimum of 500 observations per month (more is always OK!!!)
  • real-time feedback
  • NO person is exempt from being observed
  • IP cannot observe for statistics……are considered “biased”
  • IP’s can issue “tickets” if violations are observed by IP’s
    • “Ticket” for attending physicians results in $100 fine per violation, must be paid before allowed to recredential
  • Weekly update sent via email to all observers and leadership team
The posters:

• 20 x 26 inches
• professionally printed
• for staff and visitors…..
  patient empowerment!
• washable
• eye-catching!!
• fun

Problem:

• poster / sign fatigue

Strategies

• rotate them unit
• create new ones
• move locations
WHATCHA GONNA CLEAN: YOUR HANDS!

GERMBUSTERS!

Handwashing is the best way to prevent infection.

A short time ago in a hospital close, close by...

STAPH WARS

MAY THE SOAP BE WITH YOU.

Handwashing is the best way to prevent infection.
12 different posters of children and animals, 8 ½ x 11 inches, laminated, washable.
Small 4 x 3 ½ inch magnetized signs that are attached to every patient doorway

Problem:
- They tend to “disappear” and must be replaced frequently.
- IC practitioner carries them during daily rounds for replacing.
• This NO FOAM sign is posted in addition to Contact Precautions sign
• Alcohol foam is removed from inside of the patient room
• Patient and family education
• Terminal clean upon transfer or discharge
# Hand Hygiene Monitoring Tool

**Patient Care Unit**: [Blank]  
**Observer**: [Blank]  
**Shift of Observation** (circle): Days, Evens, Nights  
**Date**: [Blank]

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**KEY: Health Care Worker Type**
- MD = physician attending
- MD = resident/fellow
- MS = med student
- PA = physician assistant
- RN = registered nurse
- LPN = licensed pract. nurse
- PCa = patient care assistant
- NC = nurse clinician
- CRNA = certified registered nurse anesthetist
- CCT = critical care tech
- RT = respiratory therapist
- OT/PT = rehab. Services
- RDT = radiology tech.
- SEd = students
- FD = food/nutrition/dietary
- Tran = transporter
- Pastoral care
- Other = [Blank]

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<tr>
<th>Pt Room #</th>
<th>HCW Name</th>
<th>HCW Type</th>
<th>Hand cleansing before entering patient room or environment</th>
<th>Hand cleansing upon exiting patient room or environment</th>
<th>Compliant with nail policy (no artificial nails or artificial components applied, nails kept short, polish not chipped)</th>
<th>Feedback / Comments:</th>
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**Questions?? Call infection control at x26240 or pager 8388**  
**Turn in completed monitoring tool to infection control**  
**Fax 27625**

**DB 06.2010**
Innovative Training at St. Vincent

StVincent Video HandHygieneMonitor3.wmv
Using humor to convey an important message at New England Baptist Hospital

- Practice good hygiene often;
- Keep your hands clean by washing thoroughly with soap and water—especially important with C. difficile to remove spores;
- Keep cuts and abrasion clean and covered with proper dressing (e.g., transparent bandage) until healed.

ALCOHOL-BASED HAND RUB IS NOT EFFECTIVE AGAINST C. DIFFICILE

- Alcohol sanitizer does not kill spores;
- **Hand washing** is imperative following contact with a C. difficile patient to get rid of spores;
- You may still use alcohol after hand washing.

New England Baptist Hospital
Baystate Franklin Wants to know
Have You Been Spotted?

I Want YOU to be a Hand Hygiene HERO!
Congratulations!
You are a hand hygiene hero.

Send this card with your name and extension to Janice Momaney, 2 North and you will be entered in the Monthly Hand Hygiene Raffle.

Your name: ____________________________________________

Your extension: _________________________________________
## NE SINAI HAND HYGIENE AND PPE OBSERVATION FORM

<table>
<thead>
<tr>
<th>Worker</th>
<th>Health Care</th>
<th>Hand Hygiene</th>
<th>Staff Using PPE</th>
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<td>Before Contact</td>
<td>After Contact</td>
<td>Correctly?</td>
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<td>Waterless</td>
<td>Waterless</td>
<td>Gloves</td>
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<td>Soap and Water</td>
<td>Gown</td>
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Total Hand Hygiene Observations: 

Total Precautions Observations: 

Recommendations: 

Report to: ____________________________  Date: ____________________________
Just Clean Your Hands: materials and training videos
http://www.centerfortransforminghealthcare.org/tst.aspx

Targeted Solutions Tool

Does your organization want to:

- Decrease health care-associated infections?
- Increase hand hygiene compliance in 12 short weeks?
- Find the right solutions for your root causes to improve hand hygiene?

Then do what other health care organizations have done.

Use the Targeted Solutions Tool™

Organizations that use the TST have increased their hand hygiene compliance by 44%!

More about the TST

The Targeted Solutions Tool™ is an application that guides health care organizations through a step-by-step process to accurately measure their organization’s actual performance, identify their barriers to excellent performance, and direct them to proven solutions that are customized to address their particular barriers.

Additional Resources (PDFs)

- Learn more about the TST
- Brochure about the TST
- FAQs about the TST
- Hand Hygiene Factors and Solutions
- Preview the TST
- Learn more about the Hand Hygiene project
MetroWest Hospital Gets Down for Hand Hygiene!

Wash Your Hands For Me! (Handwashing Flash Mob) - YouTube

http://youtu.be/eNxEKMHGlTk?t=25s
Analysis Approaches
Gap Analysis at Baystate Medical Center

Guide to the Elimination of Clostridium difficile in Healthcare Settings

Cause Analysis: Ask why 5 times
A true story

My daughter Leah came home with a poor grade on a math test

WHY do you think you didn’t do well on the test?
• I had trouble concentrating

WHY do you think you had trouble concentrating?
• I didn’t sleep enough the night before

WHY didn’t you sleep enough?
• I had trouble falling asleep

WHY did you have trouble falling asleep?
• It was too noisy

WHY was it too noisy?
• Adam was practicing his saxophone at 10:00!
What can we learn about this event?
What are our policies?
What is our experience?

- HX and Risk Factors
- Testing
- Placement
- Precautions
- Treatment
- Cleaning & disinfection
- Hand Hygiene

- PPE compliance
- Equipment cleaning effectiveness
- Antibiotic use
- What are our policies?
- What is our experience with these?