Infuse Hand Hygiene Into Your Culture

May 18, 2017

Tell us about you.....

• Name
• Role
• Setting
• Measurement System
  – Observational
  – Electronic
  – Patient Survey
Session Objectives

- Attendees will learn to identify two key leadership members and their roles to make your program successful.
- Participate in at least two ways to innovatively engage your staff in hand hygiene practice.
- Develop a measurement system providing feedback to staff to improve outcomes and identify barriers to doing hand hygiene when expected.

Model for Improvement

GIMS
Gundersen Improvement System

Our Commitment:
We will deliver high quality care because lives depend on it; service as a though the patient were a loved one; and relentless improvement because our future depends on it.
Developing the Team

Former Medical Vice President & Current Medical Executive Project Sponsor

Administrative Vice President & Project Sponsor

Current Chief Nursing Officer, COO & Former Vice President Sponsor

Setting the Table
History can help shape the vision...

Dec 10, 2012 6:20pm
Heart Surgeon Gives Patients Infection When Glove Rips

We’re in Western Wisconsin... does this affect us?

- 47 year-old woman from La Crosse
- Moved to Egypt, underwent esophageal surgery 2013 with significant complications
- Traveled to NY City November 2013 for further care
- To La Crosse February 2014
- Presented to TEC with chronic open draining chest wound
<table>
<thead>
<tr>
<th>Antibiotic</th>
<th>Sensitivity</th>
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</thead>
<tbody>
<tr>
<td>Amp/Sulbactam</td>
<td>Resistant</td>
</tr>
<tr>
<td>Amoxicillin</td>
<td>Resistant</td>
</tr>
<tr>
<td>Cefaclor</td>
<td>Resistant</td>
</tr>
<tr>
<td>Cefepime</td>
<td>Resistant</td>
</tr>
<tr>
<td>Cefazolin</td>
<td>Resistant</td>
</tr>
<tr>
<td>Cefotiam</td>
<td>Resistant</td>
</tr>
<tr>
<td>Ceftriaxone</td>
<td>Resistant</td>
</tr>
<tr>
<td>Ciprofloxacin</td>
<td>Resistant</td>
</tr>
<tr>
<td>Ertapenem</td>
<td>Sensitive</td>
</tr>
<tr>
<td>Gentamicin</td>
<td>Resistant</td>
</tr>
<tr>
<td>Piperacillin/Tazobactam</td>
<td>Resistant</td>
</tr>
<tr>
<td>TMP/Sulfa</td>
<td>Resistant</td>
</tr>
</tbody>
</table>

- Wound culture February 23, 2014
- Alarmingly resistant Gram Negative Bacteria
- Only 1 antibiotic active against this bacteria!

Appeal on an intellectual and emotional level

Get the Recipe

It takes just 5 Moments to change the world

1. Open your hands, stop the spread of drug resistant germs.
2. Wash them with soap and water.
3. Rub for at least 20 seconds.
4. Rinse off completely.
5. Dry your hands with a clean towel.

Basic Salad Dressing

$$\frac{1}{3}$$ cup vinegar
$$\frac{1}{3}$$ cup olive oil
$$\frac{1}{3}$$ cup lemon juice
$$\frac{1}{3}$$ cup dijon mustard
$$\frac{1}{3}$$ cup honey
$$\frac{1}{3}$$ cup bacon bits

Mix all ingredients. Add salt and pepper to taste.
Gathers the supplies

- The “Mary Lu Effect”
- Focus on room entry and exit
- Video #1

Asking About Barriers

- I noticed you missed an opportunity for hand hygiene when (situation). To better assist staff in performing hand hygiene, part of the observation process is to identify barriers. Can you tell me what the barrier was to performing hand hygiene? Thank you.

Barriers to Hand Hygiene Qtr. 2, 2015

- # of occurrences
- Barriers: Forgets, Distraction, Hands Full, Lack of Feedback, Frequent In and Out, Gloves Used, Other, Lack of Knowledge, Dispenser Hidden, Not Touching Anything, Hands Full, Other.

Gundersen Lutheran Medical Center, Inc. | Gundersen Clinic, Ltd.
The Prompt: Changes / PDSAs

<table>
<thead>
<tr>
<th>Clinical Rotation #1</th>
<th>Clinical Rotation #2</th>
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</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td>2 Prompts:</td>
<td></td>
</tr>
<tr>
<td>1. Nonverbal</td>
<td></td>
</tr>
<tr>
<td>2. Verbal</td>
<td></td>
</tr>
<tr>
<td>Groups exchange</td>
<td>Verbal group</td>
</tr>
<tr>
<td>prompting strategies.</td>
<td>change to a</td>
</tr>
<tr>
<td></td>
<td>combined prompt.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Signs to</td>
<td>Verbal group used</td>
</tr>
<tr>
<td>increase awareness.</td>
<td>verbal followup.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Nonverbal group</td>
<td>All Students used</td>
</tr>
<tr>
<td>use verbal</td>
<td>Combined Prompt</td>
</tr>
<tr>
<td>followup.</td>
<td></td>
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<td></td>
<td>Streamline Data</td>
</tr>
<tr>
<td></td>
<td>Collection form.</td>
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<tr>
<td></td>
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</tr>
<tr>
<td>Groups exchange</td>
<td>1. Regular managers</td>
</tr>
<tr>
<td>prompting strategies.</td>
<td>update.</td>
</tr>
<tr>
<td></td>
<td>2. Flexibility of</td>
</tr>
<tr>
<td></td>
<td>verbal part of prompt.</td>
</tr>
</tbody>
</table>

Don’t forget a key ingredient......Resident Story

Data can change behavior......
Designing Your Measurement Strategy

- Who
- What
- When
- How

When

What and How

Gundersen Lutheran - When to Do Hand Hygiene Review Inpatient - Check Sheet

Methodology: The intent of this measure is to observe if hand hygiene is being performed when it is supposed to be (5 Moments). Do 30 observations in the designated week. 5 per day if possible. Vary the times and persons being observed. Observe all staff. Use a new check sheet for each day. Transfer information to the on-line data collection tool.

Hand hygiene - Please check all of those you observe the person doing or not doing and should have.

<table>
<thead>
<tr>
<th>5 Moments</th>
<th>Before Pt. Contact</th>
<th>After Pt. Contact</th>
<th>Apr/ I/E Touching Pt.</th>
<th>Before Apr/I/E Task Contact</th>
<th>Body Fluid Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Name</td>
<td>MA, RN, PA, NP, PA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td>Critical Care Tech,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Theatre, DNP, CRNA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PA, NP, PA, NP, PA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>RN, LPN, RN, LPN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MA, RN, MA, RN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
General Guidelines for Observations

- It is two separate observations when putting on gloves and after taking them off

- Entry and exit are separate observations

- Soap or gel counts

- Do not guess, if unsure - skip observation

- Do not exceed 2 observations of the same employee in a single observation session

Do not count the following situations as “not done”:

- Emergent/urgent situations

- When staff carry something into a room and perform hand hygiene immediately after putting items down

- When staff exits a room and performs hand hygiene and then re-enters another resident care area continuously and does not touch anything (environment or self) and does not perform HH when entering 2nd room

- When staff touches the resident while helping them ambulate at room entry or exit
How Many Observations?

- **30 moments** per month
  - Service provided is 24/7:
    - 15 day shift observations
    - 15 night shift observations
  - Service is business hours: 6 moments per day over five days

- **Keep your check sheets**
  - If you are unable to do the scheduled week, do the week before as long as it doesn’t go across the end of the month.

Who

- Mix it up
- Front line staff benefits
- Residents – family members

Ensure Your Measurement Plan Works

Hand hygiene observations should be completed in all inpatient and outpatient areas next week. (Patient and staff are doing hand hygiene observations.) Please let us know if you have any questions.

- Clean Hands
- Saves Lives
All the ingredients affect the end product......
Other things you can do to infuse hand hygiene into your culture?

What’s best to use to clean your hands?

• Soap and water
• Anti-bacterial soap and water
• Alcohol based hand rub
Mix ingredients together

"Germs" on a hand after touching an infected surface

After hand hygiene with alcohol gel

Alcohol gel works!

Donskey CJ. NEJM 2009: 360;3

Other Helpers

• ATP Surface Testing

RN: Readjusted monitoring cords & Documented on computer

"Name that Moment"

Alex has just moved the resident’s tray table closer to the resident, who is up in the chair.
Resources

Hand Hygiene Video

Hand Hygiene Poster

Check image to print video

Check image to view video

Evidence Based Practice

Hand Hygiene Policy
Hand Hygiene: what you should know
Guidelines for hand hygiene
Hand Hygiene in Healthcare Settings
Hand Hygiene in Healthcare Settings

Evidence Based Practice

Hand Hygiene in Healthcare Settings
Hand Hygiene in Healthcare Settings

Traveling Trophies

Most Improved
• Orthopaedic Unit

Top performer
• Mother / Baby
• Occupational Health

Orthopaedic Unit

LaCrescent Family Medicine

Occupational Health Services
All employee recognition

Introducing......

Infusing to all areas of the organization

https://www.youtube.com/watch?v=ssktVpcv9WI
Visitors Guide  Hand Hygiene

One of the best defenses against germs is frequent, thorough handwashing and use of hand sanitizer gel. It is also one of the easiest, most cost-effective ways to combat the spread of germs and infections.
Hand Hygiene
Behavioral Health

Quality Improvement tools used:
- A3s
- PDSAs

Hand Hygiene Barriers:
- Safety Concerns: Gel not readily available
- Lack of education on requirements
- Difficult Workflows

New Workflow Developed:
- Go-and-sees
- Webinar on hand hygiene in IBH settings
- Discussions with Inpt BH Safety Committee
Glove use: To Glove or Not to Glove...that is the Question

A Clean Hand is Better Than a Dirty Glove
Defining risk of cross contamination linked to 5 moments

<table>
<thead>
<tr>
<th>Moment for hand hygiene</th>
<th>Risk of cross contamination</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 A patient touched by a contaminated glove/hand</td>
<td>Gloves/hands contaminated if they had contact with any part of the environment outside the patient’s zone before direct contact with the patient’s intact skin. If the HCW touches their own clothing, skin or hair this is not considered part of the ‘patient zone’</td>
<td></td>
</tr>
<tr>
<td>2 A contaminated glove/hand touched a susceptible site e.g. wound, IV access site, phlebotomy</td>
<td>Gloves/hands contaminated if they had touched any other non-sterile objects or patient sites before the aseptic task e.g. patient skin, bed linen.</td>
<td></td>
</tr>
<tr>
<td>3 A glove/hand touched a surface or patient after contact with BP</td>
<td>Gloves/hands contaminated if used for handling urine or assisting a patient with toileting then touched other surfaces or patient</td>
<td></td>
</tr>
<tr>
<td>4 Gloves used for contact within patient zone not removed or hand hygiene not performed before contact with an object outside patient zone</td>
<td>Gloves/hands contaminated if touched another patient/objects outside patient zone, hand hygiene not performed after glove removal; or one glove/outer glove (where double-gloves used) removed part way through procedure.</td>
<td></td>
</tr>
<tr>
<td>5 Failure to remove gloves and/or perform hand hygiene after contact with patient surroundings</td>
<td>Gloves not removed or adequate hand hygiene not performed on leaving the healthcare zone.</td>
<td></td>
</tr>
</tbody>
</table>

Moments of HH breached

n = 178 episodes using gloves

Moments of hand hygiene associated with cross contamination

- 12% Moment 1
- 21% Moment 2
- 30% Moment 3
- 10% Moment 4
- 15% Moment 5

Example of how gloves are used

Potential contamination of susceptible site
1. Equipment trolley
2. Central line flush
3. IV monitor
4. Central line
5. IV Infusion lines
6. Central line flush
7. IV pump
8. IV lines discarded into waste bin
9. Bed controls
10. IV pump
Public responses to HCW glove use

Keys to Success

• Executive leadership buy in and guidance
  ❖ Discuss barriers to success
• Buy in from all levels of the organization
  ❖ Unit/department leadership rounding with staff to discuss barriers
  ❖ Culture change—encouragement of others, and accountability for one’s practice

Keys to Success

• Clear expectations for all staff
• Tool Kit available with resources for staff:
  ❖ Data collection
  ❖ Training
  ❖ Commercials
  ❖ Literature and Evidence Based Practices
• Making it fun and keeping it in the forefront for sustainability
  ❖ Showcasing departments who are succeeding!
Keep the Momentum Going

- Dedicated group including upper level leadership and unit leaders in the inpatient and outpatient settings
- Quarterly meetings with Executive Leadership
- Manager updates at least quarterly
- Orientation for all new staff and residents
- Departmental presentations throughout the organization.
  Ie. Fac. Ops, Volunteers. etc.

(2nd video)

Strategic Plan

Table. Outcomes of Infection With VRE

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atributable mortality</td>
<td>7.2%</td>
</tr>
<tr>
<td>Extended length of stay</td>
<td>6.4 days</td>
</tr>
<tr>
<td>Cost</td>
<td>$12,800</td>
</tr>
</tbody>
</table>

A MRSA infection has a median cost of $34,657 with a range of ($11,517–$98,287)

- C. Diff: Median cost of $7400, Ranging from $2900 to $35K depending on LOS

Questions?
References

Excess Costs and Utilization Associated with Methicillin Resistance for Patients with Staphylococcus aureus Infection

Gundersen Lutheran Medical Center, Inc. | Gundersen Clinic, Ltd.

Original Article

Excess Costs and Utilization Associated with Methicillin Resistance for Patients with Staphylococcus aureus Infection

Gregory J. Fico, MD; John A. Nyeen, PhD; Catherine Leear, PhD; Christine H. Lee, MPH;
Lindsey A. Berkshir, MS; Kathleen Connerly, MPH; Lindsey J. Lefler, MS; Ruth Lysfeld, MD

Oxford Journals

Clinical Infectious Diseases

Health Care Costs and Mortality Associated with Nosocomial Diarrhea Due to Clostridium difficile

Gundersen Health System.
## Measurement Plan

<table>
<thead>
<tr>
<th>Who</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>What</td>
<td>(Define your moments)</td>
<td></td>
</tr>
<tr>
<td>When</td>
<td>(Randomize your schedule)</td>
<td></td>
</tr>
<tr>
<td>How</td>
<td></td>
<td></td>
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</tbody>
</table>