Hand Hygiene
‘It Takes a Village’
Jim Miller, MS, CIC, CHEP
Infection Prevention
Wentworth-Douglass Hospital
Dover, NH
Fall 2009
CEO & VP Patient Care Services -
“So Jim how are we (you) going to increase hand hygiene compliance?”

- Need a commitment from leadership
- Clarify the **Why, When, How**
- What are expectations from staff
- What are expectations from leadership, HH workgroup
Dear WDH employee,

The Hand Hygiene (HH) Workgroup will be conducting **mandatory** education for selected hospital employees/departments.

As part of 2010 Goal Sharing and our commitment to the NH ‘High-Five’ requirements, the WDH compliance goal for Hand Hygiene is 90%, as monitored via direct observation. Our current 2009 Hand Hygiene compliance is **74%**.

**This education is mandatory for all staff in the following areas:**

- Cardiology, Care Management, CCU, CHaD, Clinical Engineering, Diabetes Services, Durham Rehab, Early Learning Center, Emergency Department, Endoscopy, Environmental Services, Food & Nutrition, Float Pool, Hospitalists, Imaging Services, Infection Prevention, Integrative Therapy, Intensivists, Laboratory, Lee Urgent Care, Medical Oncology, Neurosciences, Nursing Supervisors, Oncology Clinical Trials, Occupational Therapy, OR, PACU, Pain Clinic, Palliative Care, Patient Registration, Pharmacy, Physical Therapy, Plant Operations, Pre-admission Services, Pulmonary Medicine, Radiation Oncology, Same Day Surgery, Sea Coast Cancer Center, Security, Social Work Services, Speech Therapy, Sterile Processing, 3 North, 3 South, 3 West, Transport Services, 2 South, Women & Children’s Center, Wound Care Center

AND Optional for all other WDH employees
Mandatory employees are required to attend one 30 minute learning session and complete a post-test in HealthStream.

Computers will be available at learning sessions to complete the post-test.

Hand Hygiene Awareness Week

Monday, January 11, 2010 – Auditorium 2 (2pm-6pm)
Tuesday, January 12, 2010 – Auditorium 2 (8am-12pm & 9pm-12am)
Wednesday, January 13, 2010 – Exit 9, Conf. Room 2 (TBD)
Thursday, January 14, 2010 – Auditorium 2 (12pm-4pm & 9pm-12am)
Friday, January 15, 2010 – Auditorium 2 (7am-11am & 12pm-4pm)

The due date for completing the post-test on HealthStream is Monday, February 15, 2010.

• Failure to complete the post-test by February 15, 2010 will result in a 0.5% decrease in your merit award as part of your performance evaluation.
• Failure to complete the post-test by February 15, 2010 will make you ineligible for 2010 goal sharing award.

If you are unable to attend the mandatory education sessions, please contact your manager to discuss options.
Hand Hygiene Education Goals

- Basics
  - What is Hand Hygiene
  - How and when to use alcohol sanitizers
  - How and when to use soap & water
  - Glove use and finger nail policy

- Advance
  - Exceptions to the HH rules
  - What is C. diff
    - Why soap & water
Hand Hygiene Education Goals

- **Visuals**
  - Environmental Cultures
- **Common Reasons for ‘missed’ HH**
- **How HH observations are done**
  - Rules for observations
  - FAQs
- **Data**
  - How to get it
  - What it means
Your Hand Hygiene Assignment:

1. Perform hand hygiene
2. Visit each station
3. Sign-in on roster upon leaving
4. Sign pledge board
5. Head to CTR to complete post-test
Some Facts

Within a ½ hour of contact with a patient with C. Diff, 60% of health care workers were contaminated without even touching the patient, from merely having contact with the patient’s chart.

“80% of hospital staff who dressed wounds infected with MRSA carried the organism on their hands for up to 3 hours.”

(2009 American Medical Association)
What is Hand Hygiene?

- Term used for cleaning hands with either soap & water or alcohol-based sanitizers

  - Use **soap and water** when hands *are* visibly soiled because of contact with secretions, excretions, blood and body fluids
  - Use **alcohol-based sanitizers** if hands are *not* visibly soiled
Soap and Water

1. Wet hands with a continuous stream of water, leave water running then add a small amount of liquid soap
2. Wash vigorously for at least 15 seconds, being careful not to wash the lather away*
3. Rinse well taking care to remove all soap from hands
4. Dry hands with paper towels and use the paper towels to turn off faucets then discard towels

Time & Friction are important pay special attention to the sides of fingers, base of hands and nails, around rings and watches
Alcohol-Based Foam

1. Apply enough foam (golf ball size) to open palm
2. Use a rubbing motion to evenly distribute foam over all surfaces of the hands, particularly between fingers, fingertips, back of hands and base of thumbs
3. Rub hands until your hands feel dry (minimum 15-30 seconds)

*Time & Friction are important pay special attention to the sides of fingers, base of hands and nails, around rings and watches
Perform Hand Hygiene When You Enter & Exit Patient’s Room

#1 Apply Foam Hand Rinse
#2 Spread Thoroughly Over Hands
#3 Rub Until Dry

How to Wash Your Hands

Turn on Wet 15 Seconds Rinse/Dry Turn off
Hand Hygiene Tips

- Use of gloves does not eliminate the need for hand hygiene

- Alcohol-based sanitizers
  - Significantly reduce the number of microorganisms on skin, are fast acting and cause less skin irritation
  - Take less time than traditional hand washing
  - In an 8-hour shift, an estimated 1 hour of time can be saved by using alcohol-based sanitizers

(VHA – Hand Hygiene Fact Sheet)
Compliance Reminder
Fingernails

A. Do not wear artificial fingernails, extenders, or gel overlays when having direct contact with patients

B. Keep natural nails tips less than 1/4-inch long
Exceptions to ‘Normal’ Hand Hygiene

Nutritional Service

- Food/Tray delivery
  - Perform Hand Hygiene upon entry onto unit & upon exiting each room after tray delivery
  - Must be done once between patient rooms
Exceptions to ‘Normal’ Hand Hygiene

Environmental Services

- Trash Pick-up
  - May wear same gloves when picking up trash from room to room
  - Upon completion of trash pick-up or break in flow of trash pick-up, remove gloves, perform hand hygiene
What is C. diff?

**Clostridium difficile - (C. diff)**

is an illness caused by a toxin produced by a spore forming bacterium. It commonly cause diarrhea, but it may cause a serious and potentially life threatening colitis.

Since alcohol foam does not kill the spores, washing with soap and water is the more effective means of reducing transmission of C. diff & is **the only approved method for HH**
Soap & Water Handwashing Required

> 15 Seconds
(Happy Birthday Song)
Patient Chart

Kronos Clock

Stairway

Wheelchair Arm

MRSA

MRSA
HH Observation Rules

- Observe the employee in their normal working environment.

- HH opportunities should only be counted if there is **no doubt that the employee did or did not perform HH**. If the observer’s view is obstructed and the employee may have done HH while out of the observers view, this opportunity should not be counted.

- There are two HH opportunities for every patient contact.

- If the employee *touches anything* (e.g., cell phone, medical chart, stethoscope, etc.) after completing HH they need to do HH before touching the next patient (this would then be 2 HH opportunities).

- Observations are done by an anonymous observer.

- If the employee did not touch the patient or their environment then no HH opportunity existed and nothing is counted.

- An employee who does HH on the way out of a room and goes immediately into another room does not need to do HH again **IF** they do not touch anything. This would be counted as only one opportunity.
It was noticed that you did not perform hand hygiene when you entered/ left the patient’s room.

Please help us find ways to improve by checking the reason you might have missed alcohol foaming your hands.

- More alcohol foam dispensers
- Posted reminders (Ex: Signs)
- Believed I did not need to foam/wash hands
- Location of alcohol foam dispensers
- Place to set down items

Other: ______________

Remember: Hand Hygiene every time - ‘In & Out’
Please return completed audit tool to Ryan Rogers in PI.
WDH Compliance Rates

Organization (Overall Compliance)
Discipline (MD, RN, Other)
Unit/Department/Location

Share monthly with each department
(we now do quarterly reporting)
Your Role In Hand Hygiene Compliance

- Make hand hygiene a habit!
- Serve as a role model by practicing reliable hand hygiene
- Hold everyone else accountable and responsible for performing hand hygiene
- Coach & intervene to remind staff to perform hand hygiene
- Provide just in time training/feedback
We Promise to:

- Use trained, independent observers to monitor appropriateness of hand hygiene
- Collect HH observations using a sound measurement system
- Report HH compliance rates
- Measure the specific causes of hand hygiene failures and target solutions to those causes
Wentworth-Douglass Employees
Value Hand Hygiene

Please sign your name to pledge your commitment to reliable hand hygiene.

Post-Test - Mandatory Staff
The post-test has been assigned in HealthStream to all mandatory groups.
WENTWORTH-DOUGLASS EMPLOYEES VALUE HAND HYGIENE

Hand hygiene is one of the simplest and most powerful ways to ensure a healthy environment.

► We pledge that all staff will be thoroughly educated in hand hygiene.
► We have a commitment to this standard of excellence and will hold each other accountable.
► It is OK to ask if we have performed hand hygiene.
Infection Prevention
The Infection Prevention Department is committed to the elimination of all communicable disease transmission and biohazard risks to patients, visitors, and staff members. Read the Infection Prevention Charter.

When in doubt, wash your hands! Don’t be a Cootie Carrier.

Contact:
Jim Miller, Infection Preventionist
Ext. 2846, beeper 603-517-8177
8:00 AM – 4:30 PM, Monday - Friday
3rd Floor, Nurse Administration

Patient Education
C. Diff [pdf]
Foley-UTI Prevention [pdf]
MRSA [pdf]
SSI Prevention [pdf]
Vent-Pneum Prevention [pdf]
VRE [pdf]

Prevention Bundles
Catheter-Associated UTI Bundle [ppt]
Central-Line Bundle [ppt]
Foley Indications [pdf]
Hospital-Acquired Pneumonia (HAP) Prevention [pdf]
Surgical-Site Infection Bundle [ppt]
Ventilator Bundle [ppt]

Vaccination Resources
Influenza VIS [PDF]
Pneumococcal VIS [PDF]
Pneumovax Importance [PPT]
Pneumovax, Pt Education Flyer [PDF]
Alert - Pneumovax Facts & Fiction [Word]

Fit Test List

Infection Prevention Data
Hand Hygiene / Safety Brochure
Hand Hygiene Observation Tool [Word]
Hand Hygiene Podcast
Hand Hygiene Posters

Precaution Signs
Airborne Precautions [ppt]
Contact Precautions [ppt]
Droplet Precautions [ppt]

Staff Education
Biohazard-Sharps-Trash Guide [pdf]
How to Gown and Glove [Word]
MRSA-Activity Outside Room [Word]
MRSA-BMW [Word]
MRSA-Joint Camp [Word]
Patient Placement IC Guide [ppt]
Start & Stop Precautions C. Diff [PowerPoint]

BBP Plan
HCW
Staff that ‘missed’ HH Week
Required Podcast w/link to Post-test

Staff able to access from off-site via WDH Portal

WDH Portal

WDH Boards

Employee and Physician Resources

- Health Screening Sign-up
- Self-Assessment
- 2011 Annual Enrollment Guide (PDF)
- CAS
- Citrix Online Plug-in Web
- The Doctor's Health Partnership
- Electronic Signature Authentication (ESA)
- Forms
  - Hand Hygiene Awareness Podcast (Microsoft Windows only)
- HealthStream
- Imaging Services Department Schedules
- McKesson PACS
Hand Hygiene Awareness
Education Compliance

Total Assignments = 1337

Total Completions = 1317

⇒ Percent Complete 98.5%
Tools & Rules of HH Observations

- >40 Trained Observers
  - Each department required to have at least one HH rep and trained observer

- Each HH rep is expected to:
  - 5 hand hygiene observations per week
  - Report monthly/quarterly the HH data
    - Staff meetings
  - Post data/graphs in public place
Rules for Observations

- Must be trained by one of three people

Best practice:

- Observe the same room/setting for 10 mins
- Observe the next 5 people going into a room
  - No Random Audits
  - No Following the Same Person
- Must put your name on the observation tool
- Must identify the occupation of the ‘other’ group i.e. Transporter, PT, etc.
- If you see a missed HH opportunity…ask WHY?
  - Never in front of patients
Workgroup Successes

- Added alcohol-based foam dispensers
  - >530 dispensers hospital-wide
- Repositioned dispensers to more convenient locations
  - Always on the (right/left) same height, department-wide
- Added table top & pocket size alcohol-based hand sanitizers
- Added hand lotions to combat dry skin
- Increased number of staff trained to observe compliance and provide direct feedback
Mid-Year Celebration or Recommitment?

- Had an all day self-paced board presentation / tables
  - NOT Mandatory
- Focus on accomplishments since HH education
- “BUG” facts
  - Information about common Healthcare germs
- Glow Germ
- More Environmental Cultures (big hit)
- Current HH Data
- Food (cake) and Drawings (really big hit)
93% for 1st 6 months of 2010

\[
\frac{2584}{2772} = 93\%
\]
Overall Hand Hygiene Committee Unit Observations "Other Disciplines" Who Provide Direct Patient Care

(Excluding NPSG Hand Hygiene Observations)

3 North, 3 West, 3 South, CCL, 2 South, WMCH & ED

% Compliance

Transport  Pulmonary  Physical Therapy  Occupational Therapy  Phlebotomist(s)  Cardiology  Imaging Services  Speech Therapy  Unknown  Medic  Diabetes  Students

Goal 90% Compliance

Example of Feedback by Occupation

2009 & 2010 Compliance

Q 2 2009 (M&J) Compliance  Q3 2009  Q4 2009  Q1 (Jan & Feb) 2010
Pre-Mandatory, Leadership approved, Thought we were doing OK Data

HAND HYGIENE COMPLIANCE BY PERCENT
4th Qrt 2007 - 3rd Qrt 2011

2009
74%
Post Mandatory, Goal Sharing, Formal HH Training (current data)

HAND HYGIENE COMPLIANCE BY PERCENT
4th Qrt 2007 - 3rd Qrt 2011

8 Quarters
>90%
Overall Hand Hygiene by Discipline
1st Qrt 09 - 3rd Qrt 2011

% Compliance

1st Qrt 09 2nd Qrt 09 3rd Qrt 09 4th Qrt 09 1st Qrt 10 2nd Qrt 10 3rd Qrt 10 4th Qrt 10 1st Qrt 11 2nd Qrt 11 3rd Qrt 11

MD / ARNP / PA
RN / LNA
OTHER

n=196
n=579
n=156
Overall Hand Hygiene by Nursing Department
1st Qrt 09 - 3rd Qrt 11

% Compliance

<table>
<thead>
<tr>
<th>Department</th>
<th>1st Qrt 09</th>
<th>2nd Qrt 09</th>
<th>3rd Qrt 09</th>
<th>1st Qrt 10</th>
<th>2nd Qrt 10</th>
</tr>
</thead>
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<tr>
<td>CCU</td>
<td>100.0</td>
<td>97.0</td>
<td>99.2</td>
<td>100.0</td>
<td>97.3</td>
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<tr>
<td>3 NORTH</td>
<td>90.4</td>
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<td>3 WEST</td>
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<td>3 SOUTH</td>
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</tr>
</tbody>
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Sample Size

- CCU: n=150
- 3 NORTH: n=83
- 3 WEST: n=160
- 3 SOUTH: n=119
- 2 SOUTH: n=33
- WMCH: n=92

Graph showing overall hand hygiene compliance by department and quarter from 1st Qrt 09 to 3rd Qrt 11.
What has worked for @ WDH

- Getting leadership onboard
  - Required reporting at BOT, Safety Comm, InPt Leadership, All Staff Meetings, etc.
- Make clear what you expect from staff
  - Why, When, How, etc.
  - Incorporated into ALL New Employee Orientation
    - 5 minute ‘Cover Your Cough/HH’ video
- Make clear what staff expects from you
  - Report Data
  - Use feedback to improve
  - How observations are done
- The more TRAINED observers the better
  - Everybody is watching everybody
To help increase compliance among employees, many hospitals have placed hand-washing bouncers in all restrooms.

(This is our Plan B)

The End
Picture Examples from around WDH
Every inpatient room
Entry into the Cafeteria

Testing out new holders
Located at registration desk areas
Improvements based on direct input from HH Reps or Staff
Require posting of HH data in Departments.
In 1947, Dr. Semmelweis pioneered hand hygiene after recognizing the connection between infections and the lack of hand washing between patients. The importance of common sense has not changed over the years.

Our Chiefs of Staff, Drs. Guy Esposito, Malcolm Rosenswag and Eugene Soares, continue to use common sense every day by practicing proper hand hygiene.

Foam hand cleaners are conveniently distributed throughout the organization. We encourage everyone to use them. When a foam canister is empty, please remove the empty canister from its holder and our housekeeping department will promptly replace it with a full one.

Wentworth-Douglass Hospital's Sheila Woolley, Vice President of Patient Care Services and Gregory Walker, President and CEO, know the importance of infection control. Clean hands are the front-line defense against the spread of bacteria and viruses in the hospital. Hands that aren't properly cleaned put our patients at risk of acquiring infections and diseases.

All physicians and staff should clean their hands with an alcohol foam before and after contact with a patient. It's easy to do and gentle on the hands. Foam dispensers are conveniently located around the hospital.

The focus of our efforts has always been the patient. Our patients come in contact with multiple staff members during their visit and potentially numerous germs. Take a look at a few examples of how many departments and staff a patient encounters. We teach many lines in healthcare proper hand hygiene can help preserve them. Through our efforts, hand sanitizer use has increased over 400% since its introduction in early 2005.

Foam hand cleaners are conveniently distributed throughout the organization. We encourage everyone to use them. When a foam canister is empty, remove the empty canister and a member of our Environmental Services Department will promptly replace it with a full one.
**Clean Hands Save Lives.**

So PLEASE ask your caregiver and physician if they have washed their hands... They're expecting it.

**Hand Hygiene**

Wentworth-Douglass Hospital recognizes the importance of hand hygiene and how it affects your health. Our staff and physicians are committed to helping you attain your highest level of health and invite you to become an active participant in your care.

Hand hygiene is the single most important thing anyone can do to prevent the spread of infection from one person to another.

*Did you wash your hands? Ask me if I've washed mine.*

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**Medication Safety**

Help ensure you are getting the right treatment program by knowing what medications you are taking at home and in the hospital.

**Latex Allergy**

As with most allergies, sensitivities develop over time and with continued exposure. Developing a Latex allergy is caused from the repeated exposure to latex or rubber containing latex products. The prod-

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**The Centers for Disease Control advise cleaning hands...**

- Before giving direct care to any patient
- Before putting on and after removing gloves
- After direct contact with skin surfaces such as after taking a pulse or blood pressure
- After contact with blood and body fluids, such as changing a dressing
- Before any invasive procedure such as starting an IV or inserting a foley catheter
- Before and after giving medication
- After contact with a piece of equipment, supplies or objects in any patient area
- Before and after handling food
- After using the restroom

**Cover Your Cough**

Your health could be at risk with exposure to so many different germs. The following suggestions may help you and those around you prevent illness. Many infections and illnesses can be passed from one person to another through means other than direct contact. Infections and illnesses can also be spread through the air as well.

- Cover your nose and mouth with a tissue whenever you cough or sneeze
- Throw the tissue in the trash immediately after each use
- If you do not have a tissue, sneeze or cough into your sleeve
- Airborne germs can be passed from one person to another within a three foot area
- Wash your hands after coughing or sneezing
- Stay home when you are sick
- Do not share eating utensils, drinking glasses, towels or other personal items
- Avoid close contact with people who are sick

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**Visitors are welcome to use the alcohol-based foam canisters located throughout our hospital to clean their hands.**

Alcohol-based foams and gels are currently recommended by the CDC to eliminate bacteria from your hands' surface.
CONTACT PRECAUTIONS

- PERFORM HAND HYGIENE
- GOWN and GLOVES REQUIRED UPON ENTRY
- Wipe/Clean equipment used on patient upon equipment leaving room.
- Dispose of gown and gloves in regular trash without touching outside area.
- PERFORM HAND HYGIENE
We will try almost anything to increase HH (some work - some don’t)

Pass the ‘Cootie’
(Hot Potato)
Give bug pin to someone you saw not doing HH when appropriate