World Health Organization (WHO) 5 Moments and Hand Hygiene Measurement Tool Kit for Indiana

July 10, 2013
IHA-APIC
Webinar Agenda

• Overview & Introductions –
  – Betsy Lee, IHA
  – Sonya Mauzey, APIC-Indiana President

• Understanding the WHO 5 Moments for Hand Hygiene
  – Jennifer K. Spivey MSN, RN, CNOR, CIC, Infection Preventionist

• Understanding the APIC-IN Hand Hygiene Measurement TOOLKIT
  – Michele Gonser, RN, BSN, CIC, Infection Preventionist, Parkview Regional Medical Center

• Hand Hygiene Journey
  – Rachel White, MLS(ASCP)CM, CHC, CIC, Infection Prevention Coordinator, Margaret Mary Community Hospital

• Questions
Evaluation

• Webinar funded by CMS through the Partnership for Patients
• CMS wants 80% of participants to evaluate educational sessions
• As part of this initiative, our organization agrees to:
  – Participate and evaluate: Participate in educational sessions and technical assistance offerings and provide feedback and session evaluation in a timely fashion.
• Please complete the simple evaluation by July 18, 2013: https://www.surveymonkey.com/s/HandHygieneWebinar
Understanding the WHO 5 Moments for Hand Hygiene

Jennifer K. Spivey MSN, RN, CNOR, CIC
Infection Preventionist
Objectives

- Identify how the WHO 5 moments for measurement relates to the indication for hand hygiene contained in the WHO Guidelines.
- Describe the underlying theory of the WHO 5 moments for hand hygiene and how that relates to the before and after indications for opportunities.
- Define the “patient zone” and what is the difference between an indication, an opportunity, and a moment for hand hygiene.
- Provide examples for the WHO 5 moments of measurement consistent with the APIC toolkit for use.
It’s all about measurement

WHO’s decision to address hand hygiene by focusing on 5 moments was intended to make it easier to understand when there is a risk of pathogen transmission via the hands.

WHO’s decision also included that the caregiver “memorize” and assimilate these 5 moments into the dynamics of healthcare activities.

WHO’s intended use is to **reduce** the number of times when hand hygiene occurs to the **minimum** for **maximum** patient safety.

Endorsed as “Best Practice” measurement by APIC Indiana Board of Directors 2013, and the Indianapolis Pt Safety Coalition Perioperative Committee 2012.
It’s all about “Patient zones”

- Indications for hand hygiene depend on the health care works movements between geographical areas (the care environment and the patient surroundings) called the “patient zone”:
  - Examples of patient zones:
    - Half of a semi private room that is dedicated to the patient
    - All of a private room
    - The immediate area surrounding the patient in a open unit (PACU or ED)
    - The immediate area surrounding the patient in the operative/procedural room (not the entire OR suite)
It’s all about the “patient zone”

- Regardless of whether gloves are used or not!

- ----indicates patient zone----
Hand hygiene and glove use

- The use of gloves *does not* replace the need for sanitizing your hands.

- WHO 5 moments include to sanitize your hands *before* donning gloves *and after* removal of gloves, regardless of movement within the 5 moments.

- You should wear gloves only when indicated for use, otherwise they become a major risk for germ transmission.
Patient zones exist in EDs, PACCU, Clinics...
The OR/Procedural “Patient zone”
Environmental Transmission
Patient zones exist in Ambulatory Care
Special Care Nursery “patient zones”
The Inanimate Environment Can Facilitate Transmission

X represents VRE culture positive sites

~ Contaminated surfaces increase cross-transmission ~

Survival of Pathogens on surfaces

- C Difficle
- Staphylococcus
- VRE
- Aceintobacter
- Norovirus
- Adenovirus
- Rotovirus
- SARS, HIV etc.
- H1N1 - Influenza A
- > 5 months!
- 7 months
- 4 months
- 5 months
- 3 weeks
- 3 months
- 3 months
- Days to week
- Few days
Health-care activity is made up of a *succession* of tasks during which health-care workers hands touch different types of surfaces (patient, objects, body fluids, etc.).

Depending on the *order* in which these contacts occur, pathogen transmission from one source to the must be interrupted, as contact is a potential source of contamination.

It is during the interval between two contacts that the *moments (indication or indications)* for hand hygiene occur.

**Its all about theory of prevention of transmission**
Indications, opportunities, and moments

- The **before** indications are present when there is a risk of microbial transmission to the patient; the actions that correspond to these indications protect the patient.

- The **after** indications are present when there is a risk of microbial transmission to the HCW, and/or to the HCW environment or other person present. The actions that correspond to these indications protect HCW and the healthcare environment and ultimately other patients.

- **The right action, at the right moment**...*will contribute significantly to safe care and decrease risk for HAIs.*
Indications, opportunities, and moments

- **The Indications:** The reason why hand hygiene is necessary at the given moment. It is related to the risk of pathogen transmission from one surface to another. These indications are the “five moments” for hand hygiene.

- **The Opportunities:** This is important when observing compliance. From the point of view of the observer; the opportunity exists whenever one of the moments for hand hygiene is present and observed. Several moments can come together in one opportunity.

- **The Moments:** They occur during movements between geographical areas, during transitions between tasks near patients, between patients, or some distance from them.
Before Touching the Patient

Patient Care Units examples:
- shaking hands, stroking a child’s forehead
- helping a patient to move around, get washed
- applying oxygen mask, giving physiotherapy
- taking pulse, blood pressure, chest auscultation, abdominal palpation, recording ECG

OR and Procedure areas:
- Before checking in your patient in pre op area
- Before bringing pt into the OR suite (at door) or-
- Before you hook up all items to pt
- Before putting on gloves to help Anesthesia with ET tube, swan, etc
- Before placement of Foley
- Before Prep
Before Clean/ Aseptic Procedures

Patient Care Units examples:

- brushing the patient’s teeth, instilling eye drops
- skin lesion care, wound dressing, subcutaneous injection
- catheter insertion, opening a vascular access system or a draining system, secretion aspiration
- preparation of food, medication, pharmaceutical products, sterile material.

OR and Procedure areas:

- Placement of Foley catheter
- Placement of IV lines/Swan
- Hanging blood products
- Pouring sterile fluids on field in non-emergencies
After Body Fluid Exposure Risk

Patient Care Units examples:
- brushing the patient’s teeth, instilling eye drops, secretion aspiration
- skin lesion care, wound dressing, subcutaneous injection
- drawing and manipulating any fluid sample, opening a draining system, endotracheal tube insertion and removal
- clearing up urines, feces, vomit, handling waste cleaning of contaminated and visibly soiled material or areas (soiled bed linen lavatories, urinal, bedpan, medical instruments)

OR and Procedure areas examples:
- After handling sponges (after removal of gloves)
- After emptying urine from Foley bag
- After handling specimens
- Number 4 above applies in both settings
- After taking off gloves from terminal room turnover (end of series of events - doing dirtiest last)
After Touching the Patient

Patient Care Units examples:
- shaking hands, stroking a child forehead
- helping a patient to move around, get washed
- applying oxygen mask, giving physiotherapy
- taking pulse, blood pressure, chest auscultation,
- abdominal palpation, recording ECG

OR and Procedure areas examples:
- After checking pt in pre op / chart
- After positioning patient/ before throwing sterile supplies
- After leaving pt in PACCU if you are transporting
- After case gets started this becomes more about pt’s environment
After touching the Patient Surroundings

**Patient Care Units examples:**
- changing bed linen, with the patient out of the bed
- perfusion speed adjustment/ monitoring alarm
- holding a bed rail, leaning against a bed, a night table clearing the bedside table

**OR and Procedure areas examples:**
- Removal of bed linens/drapes- after removing gloves
- After getting case started and moving up equipment/ before charting
- Hunting and gathering supplies (non urgent depends on case: foam in/foam out)
- Use critical thinking skills it is a sterile environment/think of high touch surfaces having greater risk if not decontaminated between cases

- Do Not be too hard on yourself or your team!
Why do the 5 moments not include hand hygiene before touching furniture in the patient’s immediate environment?

- The 5 moments are prioritized on the basis of risk transmission. There is not an indication to perform hand hygiene before touching the patient’s environment (bed frame- rails, bedside table, patient table).

- The most important reason why is the fact that any object or surface in the patient’s immediate surroundings is part of the “patient zone” and is considered contaminated by the patient’s own pathogens.
Putting it all together

The first moment on approaching the patient is moment 1. “Before Patient contact”
- Before entering the patient zone (crossing that theoretical dotted line) which separates the pt. environment from the healthcare environment.
- The indication is immediately before touching the patient.

- If the bedside table is touched hand hygiene does not need to occur before this action.

- Hand hygiene should occur either when entering the pt. zone and before touching the table and then touching the patient, or after touching the table and immediately before touching the patient.

- In both cases the indication is “before patient contact”.
Putting it all together

When observing hand hygiene always remember to ask: Is what I am observing an indication for hand hygiene according to the Five moments?

- If no, then there is no need for hand hygiene.

- There is no indication for “before patient environment” when in the patient zone. If you sanitize your hands when entering the patient zone, you may touch the environment and then the patient because your hands will be contaminated with that individual patient’s pathogens.

- In the event that you touch the patient’s environment only and not the patient you must sanitize your hands when leaving the patient zone according to the moment, after contact with the patient’s immediate environment.
Putting it all together

Why does “Before Aseptic Task” include many tasks which are not usually associated with the term aseptic task; i.e. Oral care?

- This is for simplicity sake to include any task or procedure that involve contact with the patient’s mucous membranes or non intact skin, or with any invasive medical device.

- This is the time that when in the patient zone, you must sanitize your hands just before this task. This is one of the most important moments that matter most to prevent device related infections and SSIs.
Putting it all together

How to apply the 5 moments in multiple bed occupancy or sub optimal spaces:
- These patients often times become colonized by the same microbes.

- Compliance is still important, focus on moments 2 and 3....**before aseptic procedures** and **after body fluid risk exposure** to capture the highest risk for transmission when proximity of the patient zone is shared space.

- Use critical thinking skills and **logic** when undertaking tasks within this patient environment; the indications **before** and **after** patient contact, when moving from one patient to the other.

- In sub optimal spaces, the principles can still be applied if you use each bed as its own zone.
Examples of Physician Non-compliance

- Before donning and after removing gloves! Surgeons, Anesthesia, all specialties.
- Lack of performance of hand hygiene before or after patient contact. (includes isolation rooms with proper PPE)
- Before, during and after aseptic procedures- starting lines, gloves are not enough, sanitize hands before and after removal of gloves.
- Soiled gloves left on after finished with procedures, or central or arterial line manipulation.
- Preparing drugs or equipment for a procedure to follow with soiled gloves.
- Other: picking up something off the floor then proceeding with patient care or contact without sanitizing hands.
- No hand hygiene when in the patient zone regardless of indications.
Understanding the APIC-IN Hand Hygiene Measurement TOOL KIT

Michele Gonser, RN, BSN, CIC
Infection Preventionist
Parkview Regional Medical Center
Objectives

- Purpose of the Tool Kit
- Background
- APIC Indiana Recommendations
  - Measurement
  - Data Collectors
  - Sample Size
  - Continuous Improvement
Tool Kit Purpose

- To reduce harm from preventable HAIs
- To adopt best practices with hand hygiene measurement
- To assist with standardization of hand hygiene measurement and reporting
Tool Kit Background

- Hand hygiene – the most important method to reduce transmission of organisms
- Best practice standards must be selected
- Measuring adherence is fundamental and complex
- The basics of measurement follows evidence based principles
Determine WHAT to Measure

- Activity
  - Hand hygiene
  - PPE use

- Method
  - Alcohol based hand foam vs. soap and water
  - All hand hygiene

- Discipline
  - Department-specific staff
  - All healthcare workers
Determine WHAT to Measure

- **Time-Frame**
  - All open hours – evenings/nights/weekends
  - Business hours

- **Communication**
  - Reporting
  - Process improvement
Data Collectors

- Training program
  - WHO 5 Moments
  - Anonymous observation
  - Forms and tools
  - Random sampling
  - Consistent standardization = reliable data
  - Knowledge assessment
Sample Size

- Estimate opportunities
  - Calculate annually
  - Include in Risk Assessment

- Minimum sample
  - The larger the sample the more reliable the data
  - Refer to Risk Assessment

- Implement Sample Size tools
  - TJC suggested sample size
  - Estimating Hand Hygiene Opportunities
TJC Sample Size

- Population size of < 30 = sample 100% of available cases
- Population size of 30-100 = sample 30 cases
- Population size of 101-500 = sample 50 cases
- Population size of > 500 = sample 70 cases
Estimating HH Opportunities

**Total number of ICU beds**

- Multiply by 12 (estimated number of opportunities)
- Multiply by 24 (# of hours in the day)
- Multiply by 30 (# of days in the month)

Equals estimated number of ICU opportunities:___________
Number of opportunities currently observed: __________

**Total number of med/surg beds**

- Multiply by 6 (estimated number of opportunities)
- Multiply by 24 (# of hours in the day)
- Multiply by 30 (# of days in the month)

Equals the estimated number of Med/Surg opportunities:____________
Number of opportunities currently observed: __________
Future Goal: ______________
Estimating HH Opportunities

Total number of Ancillary patients per hour

Multiply by 3 (estimated number of opportunities)
Multiply by # of hours open per day
Multiply by # of days open per month
Equals the estimated number of Ancillary opportunities: ________________

Number of opportunities currently observed: ___________

Add all 3 numbers together to get the total number of opportunities

Number of opportunities currently observed: ___________
Future Goal: _____________
Continuous Improvement

- Annual assessment
  - Measurement system
  - Data reliability
- Set goals
  - Increase sample size
  - Improve process
- Compare data trends
Measurement Tools

- Sample Data Collection Forms
  - Paper monitoring tools
  - iScrub Lite

- Sample Educational Materials
  - Training slides
  - Testing

- Sample Handouts
  - 5 MomentsFact Sheet – long form
  - Fact Sheet – short form
Tool Kit Summary

- APIC Indiana Hand Hygiene Measurement Recommended Guidelines
  - Standardized Measurement
  - Trained Data Collectors
  - Valid Sample Size
  - Easy-To-Use Tools
  - Timely Communication
  - Continuous Improvement
Hand Hygiene Journey
Southeastern Indiana Patient Safety Coalition (SEIPSC)

Rachel White, MLS(ASCP)CM, CHC, CIC
Infection Prevention Coordinator
Margaret Mary Community Hospital
How It All Began

- Southeastern Indiana Patient Safety Coalition
  - Progressive
  - Movers & Shakers
  - Transparent

- Goal
  - To find a coalition topic with high patient safety impact to focus on for improvement.
Background

- The coalition brainstormed and prioritized High Impact Patient Safety Focus to work on as a Team.
  - Hand Hygiene
  - Invited Infection Preventionists
    - Shared individual processes
    - Discussed variation
    - Requested standard tool kit from APIC
Toolkit Test

- Draft version
  - Tested by all within the coalition
  - Feedback was forwarded back to APIC
  - Revisions made

- FINAL PRODUCT
  - Volunteers for 2\textsuperscript{nd} Trial.
  - Survey Monkey
Evaluation

• Webinar funded by CMS through the Partnership for Patients

• CMS wants 80% of participants to evaluate educational sessions

• As part of this initiative, our organization agrees to:
  – Participate and evaluate: Participate in educational sessions and technical assistance offerings and provide feedback and session evaluation in a timely fashion.

• Please complete the simple evaluation by June 19, 2013: https://www.surveymonkey.com/s/HandHygieneWebinar
Thank you