Hand Hygiene in Healthcare

Basics of Infection Prevention
2-Day Mini Course
May 2017
Objectives

• Describe impact of hand hygiene on infection prevention
• Review terminology
• Describe proper hand hygiene techniques
• Cite indications for appropriate use
• Select appropriate agents
• Monitor healthcare personnel adherence
• Improve hand hygiene practices
Impact of Hand Hygiene on HAIs

- 722,000 patients acquire HAI every year\(^1\)
  - 75,000 die as a direct result
- Most common mode of transmission is via hands of HCP\(^2\)
- Studies show that some healthcare personnel (HCP) perform hand hygiene less than half the times they should\(^2\)

Reasons for Poor Adherence

• Both individual and system factors contribute to poor adherence with hand hygiene
  – Lack of knowledge/value of handwashing
  – Increased demands with less time
  – Irritated and/or dry hands
  – Shortage of soap, paper towels, and/or sinks
  – Forgetfulness / “patient needs come first”
  – Belief that wearing gloves avoided need for handwashing
  – *No consequences for not performing hand hygiene*

Federal and State Requirements

• TJC National Patient Safety Goal 7.01.01:
  – requires participating facilities to comply with one of the following:
    • CDC’s 2002 Hand Hygiene Guideline\(^1\)
    • WHO’s Clean Care is Safer Care Campaign\(^2\)

• CMS PP/§483.65(b)/Infection Control/Tag F441:
  – Facility must require staff to wash hands after each direct patient/resident contact (for which hand washing is indicated by accepted professional practice)\(^3\)

2. [http://www.cdc.gov/handhygiene/providers/guideline.html](http://www.cdc.gov/handhygiene/providers/guideline.html)
Definition of Terms

• **Hand hygiene:**
  – Performing hand washing, antiseptic hand wash, alcohol-based hand rub, or surgical hand antisepsis

• **Handwashing:**
  – Washing hands with water and plain soap

• **Antiseptic hand wash:**
  – Washing hands with water and soap containing an antiseptic agent (i.e. alcohols, chlorhexidine, iodine, triclosan\(^1\))

• **Alcohol-based hand rub:**
  – Rubbing hands with alcohol-containing solution (60-95%)

1. [http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm517478.htm](http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm517478.htm)
Surgical Hand Antisepsis

• Perform one of the following preoperatively:
  – Antiseptic hand wash
  – Antiseptic hand rub:
    • Rub hands and forearms with solution containing antiseptic agent (antimicrobial soap)
    • Must pre-wash hands and forearms with water and plain soap
    • No hand/arm jewelry or artificial nails
Hand Hygiene Techniques

• Alcohol-based rub:
  1. Apply product (per manufacturer’s recommendation)
  2. Rub all surfaces together until dry (15-20 seconds)

• Soap and water:
  1. Wet hands with water
  2. Apply product (per manufacturer’s recommendation)
  3. Rub all surfaces together vigorously (at least 15 seconds)
  4. Rinse hands until no product remains
  5. Dry hands with disposable towel (use to turn off faucet)

2. Guideline for Hand Hygiene in Health-care Settings. MMWR 2002; vol. 51, no. RR-16
Indications for Appropriate Hand Hygiene (I)

• Using **soap and water:**
  – Hands visibly soiled or contaminated
  – Before eating
  – After using the bathroom
  – Exposed to spore-forming bacteria (i.e. CDI), certain non-enveloped viruses (i.e. norovirus), protozoan oocysts, and prions.

Indications for Appropriate Hand Hygiene (II)

• Using **alcohol-based hand rub:**
  – Before and after patient care
  – Before donning sterile gloves
  – Before inserting invasive devices
  – After contact with patient’s skin (intact and non-intact), body fluids, and wound dressings
  – After removing gloves
  – After contact with close objects/equipment
  – Moving from contaminated to clean site on same patient

5 Moments for Hand Hygiene

1. Before touching a patient
2. Before clean/aseptic procedure
3. After body fluid exposure risk
4. After touching a patient
5. After touching patient surroundings

1.http://www.who.int/gpsc/5may/background/5moments/en/
Selecting Appropriate Agents

• Required to provide both alcohol-based hand rub and plain lotion soap or antimicrobial soap
• Look for products with good efficacy and low irritancy
  – Cost should not be primary factor
  – Think of how to replace in dispensers
• All hand hygiene products (including lotions) must be approved by IP Committee and the users
  – Include review and approval in policies
Skin and Nail Care

• Provide HCP with hand lotions or creams to minimize dryness/irritation
• Select products that do not decrease efficacy of alcohol-based hand rub or antimicrobial soaps
• No:
  – personal lotions/creams
  – artificial nails
• *Unknown effect of wearing rings in healthcare settings*
Dispenser Location

- Must strategize placement for convenience and to improve compliance
  - Check with local authorities for restrictions
Monitoring for Adherence

• TJC requires monitoring and feedback of HCP adherence

• Examples:
  – Direct observations by ward or service
    • “Secret shopper” method best
  – Monitor amount of product used per 1,000 patient days
  – Video-monitoring or sensing devices
Effective Interventions

• Multimodal, multidisciplinary strategies more likely to create lasting change than single interventions
  – Motivation is key

• Examples:
  – Get administrative and departmental support
  – Role modelling of excellent hand hygiene practices
  – Incentive programs
  – “bundles”
Staff Education

- Required by TJC
- One-time education less effective than regular reminders
- Competency-based training best
- CDC Hand Hygiene Training Course:
  - [https://www.cdc.gov/handhygiene/providers/training/index.html](https://www.cdc.gov/handhygiene/providers/training/index.html)
Patient Involvement

• Encourage patients (and visitors) to:
  – Clean their hands
    • “I saw you clean your hands when you arrived some time ago, but would you mind cleaning them again?”
  – Remind staff to clean their hands
    • “I’m worried about germs spreading in the hospital. Will you please clean your hands once more before you start my treatment?”
  – Provide positive reinforcement for compliance
Resources

• CDC Hand Hygiene in Healthcare Settings:

• CDC Clean Hands Save Lives Campaign:

• WHO Save Lives: Clean Your Hands campaign:
  – http://www.who.int/gpsc/5may/en/

• YouTube for educational videos
Questions?