

Basics of Infection Prevention  
2-Day Mini Course  
*November 2019*

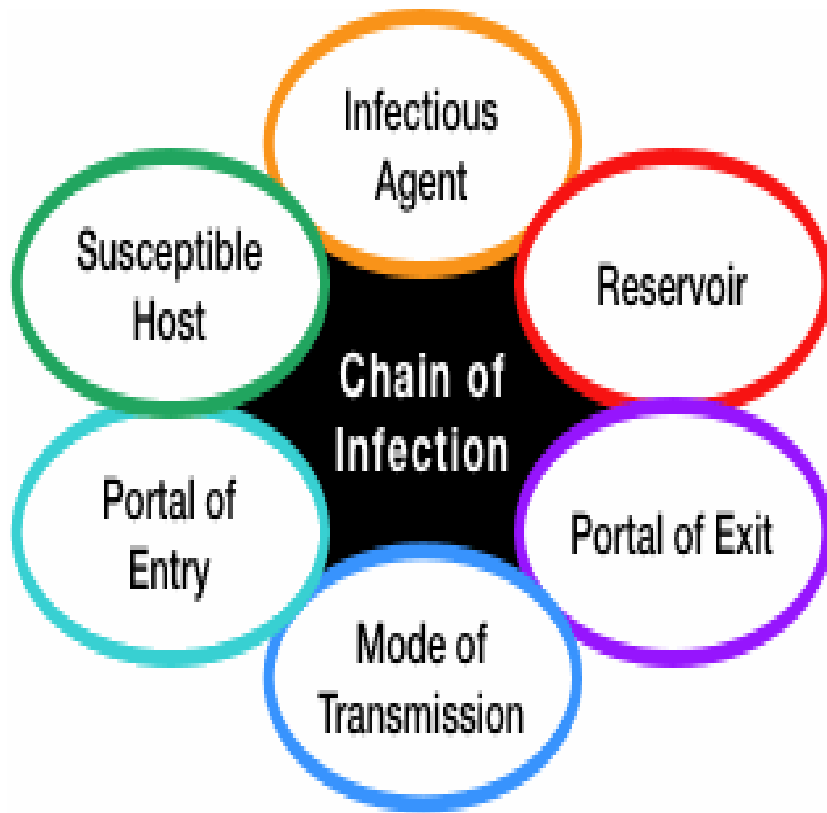
# Standard Precautions and Hand Hygiene in Healthcare

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# Objectives

- Describe impact of hand hygiene, Standard and Transmission based precautions on infection prevention
- Describe proper hand hygiene techniques
- Select appropriate agents
- Monitor healthcare personnel adherence
- Relationships and improving hand hygiene practices

# Standard Precautions



- Designed to reduce risk of transmission from both recognized and unrecognized sources of infection
- Considers all body fluids infectious (except sweat)
- Used for care of all patients

# Standard Precautions

## Include

- Hand hygiene
- Barrier protective equipment
  - Gloves for anticipated contact with blood, body fluids (except sweat)
  - Mask and eye protection if splash, splatter, or sprays reasonably anticipated
  - Gloves and gown for open, draining wounds, fecal incontinence
  - Mask for new onset or increasing respiratory secretions



# Do's and Don'ts of Glove Use

- DON'T
  - Work from dirty to clean
  - Substitute HH for glove use
- DO
  - Limit opportunities for “touch contamination” – protect yourself, others, and the environment
  - Ex: don't touch your face or adjust PPE with dirty gloves
  - Don't touch environmental surfaces except as necessary during patient care

# What Type of PPE Would You Wear?

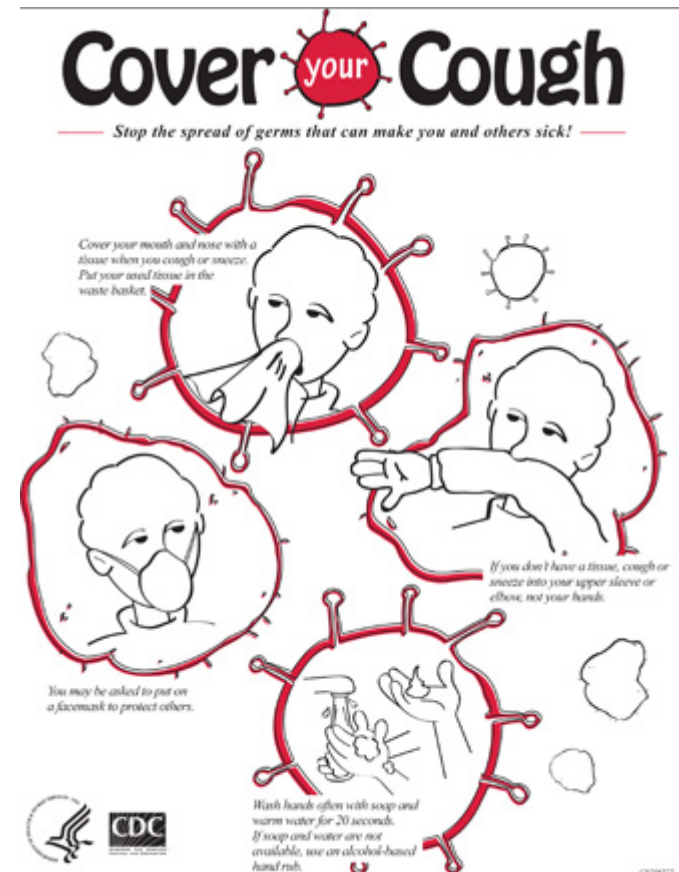
- Giving a bed bath?
- Suctioning oral secretions?
- Responding to an emergency where blood is spurting
- Feeding a patient with persistent cough?
- Cleaning an incontinent patient with diarrhea?
- Irrigating a wound?
- Administering medication?
- Ambulating with patient?

# What Type of PPE Would You Wear?

- Giving a bed bath?
  - None
- Suctioning oral secretions?
  - Gloves and mask/goggles
- Responding to an emergency where blood is spurting?
  - Gloves, gown, face shield
- Feeding a patient with persistent cough?
  - mask
- Cleaning an incontinent patient with diarrhea?
  - Gloves, gown if needed
- Irrigating a wound?
  - Gloves, gown, goggles or face shield
- Administering medication?
  - None
- Ambulating with patient?
  - None

# Standard Precautions - continued

- Respiratory Hygiene/Cough Etiquette
  - “Vampire” technique
  - Have supplies available in public spaces during flu season
- Safe injection practices – One and Only Campaign
  - Single dose/use vials should never be used on more than one patient





# Transmission Based Precautions

- Used in addition to Standard Precautions when SP may be insufficient to prevent transmission
- Include
  - Contact precautions
  - Contact enteric
  - Droplet precautions
  - Airborne precautions



# Contact Precautions

- Gown and gloves used by staff for contact with patient or environment of care
- Used for epidemiologically important microorganisms
- Places a barrier between the HCW and infectious agent
- Gown and gloves should be donned prior to entry into room, discarded prior to exit
- Single room preferred; alternatives are spatial separation or cohorting (after consultation with IP)

# Contact Enteric Precautions

- Gown and glove use by staff for contact with *C. difficile* or norovirus positive patient or their environment
- MUST:
  - Wash hands with soap and water
  - Bleach use only for environmental cleaning

# Droplet Precautions

- Intended to prevent transmission of pathogens via respiratory or mucous membrane contact with respiratory secretions
- No special air handling or ventilation required
- Surgical or procedure mask should be donned prior to entry into room, discarded prior to exit
- Single room preferred; alternatives are spatial separation or cohorting (after consultation with IP)
- Patient should be transported in a mask

used in addition to Standard Precautions

# Airborne Precautions

- Intended to prevent transmission by inhalation of infectious agents that can remain suspended in the air
- Requirements include
  - Increased ventilation rate
  - Air exhausted directly to the outside or through HEPA filtration
  - Facility respiratory protection program (education, fit-testing, user seal checks in place)
- Respirator should be donned prior to entry into room, discarded after exit
- Single room preferred; alternative is cohorting
- Patient should be transported in a mask

# Evaluate Placement of PPE

- Is it readily available?
- Is it mobile?
- Appropriately stocked?
- How far is too far?



# Impact of Hand Hygiene on HAIs

- Most common mode of transmission is via hands of HCP<sup>2</sup>
- Studies show that some healthcare personnel (HCP) perform hand hygiene less than half the times they should<sup>2</sup>

# 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 Hand Hygiene Guideline (CDC) <sup>1</sup>
    - WHO's Clean Care is Safer Care Campaign<sup>2</sup>
- 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)<sup>3</sup>
- California Code, Health and Safety Code - HSC § 1279.7:
  - (a) A health facility, as defined in subdivision (a), (b), (c), or (f) of Section 1250, shall implement a facility-wide hand hygiene program.

# California Code, Health and Safety Code - HSC § 1279.7

- (a) A health facility, as defined in subdivision (a), (b), (c), or (f) of Section 1250, **shall implement a facility wide hand hygiene program.**

## Centers for Medicare & Medicaid Services

### Hospital Infection Control Worksheet

## Section 2.A. Hand Hygiene

Elements to be assessed		Surveyor Notes
Hand hygiene is performed in a manner consistent with hospital infection control practices, policies, and procedures to maximize the prevention of infection and communicable disease including the following:		
Note: Observations for compliance with hand hygiene elements should be assessed throughout the hospital.		

## Section 2.C. Personal Protective Equipment/Standard Precautions

Elements to be assessed		Surveyor Notes		Surveyor Notes
Personal protective equipment is utilized in a manner consistent with hospital infection control policies and procedures to maximize the prevention of infection and communicable disease including the following:				
Note: If possible, observe health care personnel use of personal protective equipment in two different patient care areas or settings in hospital.		<input type="radio"/> Second observation not available (If selected, questions 2.C.1 – 2.C.7 RIGHT column will be blocked)		
2.C.1 Supplies for adherence to Standard Precautions using personal protective equipment (e.g., gloves, gowns, mouth, eye, nose, and face protection) are available and located near point of use.	<input type="radio"/> Yes  <input type="radio"/> No		<input type="radio"/> Yes  <input type="radio"/> No	

# Hand Hygiene Techniques

- **Alcohol-based rub:**
  - Apply product (per manufacturer's recommendation)
  - Rub all surfaces together until dry (15-20 seconds)
- **Soap and water:**
  - Wet hands with water
  - Apply product (per manufacturer's recommendation)
  - Rub all surfaces together vigorously (at least 15 seconds)
  - Rinse hands until no product remains
  - Dry hands with disposable towel (use to turn off faucet)
- <https://www.youtube.com/watch?v=LvRP3c5n3P8>

# Indication for Hand Hygiene

## Hand Sanitizer

### When Your Hands are NOT Visibly Soiled

- Get in habit of doing it the same way
- **Dry time = Kill time!**
- Hand sanitizer does not cause bacterial resistance



## Soap and Water Wash

### When Your Hands Are Visibly Soiled

- Use only cold or lukewarm water – NO hot water
- Clean fingernails
- Rinse Well
- Dry thoroughly using one towel

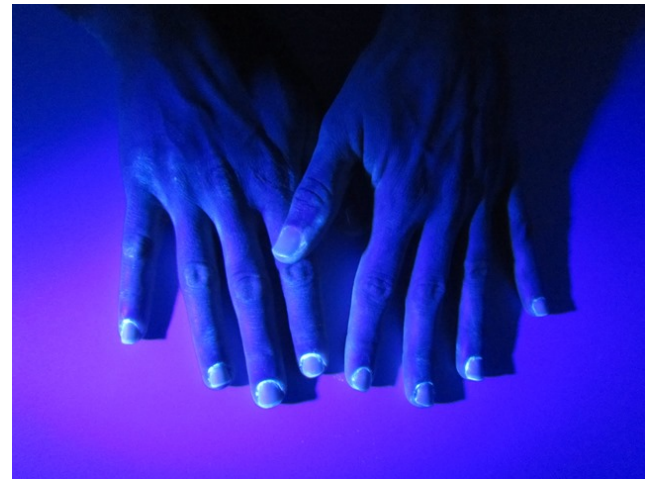
# 5 Moments for Hand Hygiene

## 5 moments for HAND HYGIENE



# Technique Matters

- One plate before handwashing, the other after
- Can you tell the difference?
- Education and feedback to staff regarding hand hygiene technique is important



# Selecting Appropriate Agents

- Required to provide both alcohol-based hand rub and plain or antimicrobial soap
- Involve the users!
- Cost should not be primary factor
- Look for products with good efficacy and low irritancy
- Think of how to replace in dispensers
- *Unknown effect of non-alcohol based hand rubs*



# 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, including gel polish
  - Nail polish must be smooth and intact
- *Unknown effect of wearing rings in healthcare settings*

# Dispenser Location

- Must strategize placement for convenience and to improve compliance
- Use National Fire Protection Association Life Safety Code for safe placement of dispensers
  - Check with local authorities for restrictions

# Monitoring for Adherence

- TJC and Leapfrog require 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

# Data to Promote Conversations

- Hand Hygiene Compliance
  - Multidisciplinary
- Sinks
  - Blocked, water interruption / total sinks
- Product Availability: Soap, Gel, Paper Towel
  - Dispensers w/o product / total dispensers
  - Missing/broken dispensers / total dispensers

# Effective Interventions

- Multimodal, multidisciplinary strategies more likely to create
- lasting change than single interventions
  - Motivation is key
- Examples:
  - Get administrative and departmental support
  - Role modeling of excellent hand hygiene practices
  - Incentive programs
  - “Bundles”

# Staff Education

- Required by TJC
- One-time education less effective than regular reminders
- CDC Hand Hygiene Training Course:
  - <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

# World Health Organization

**May 5th is WORLD Hand Hygiene Day**



**Who should Wash?**

**Doctors**

**Nurses**

**Care providers**

**Friends**

**Family**

**Visitors**

**Patients**

**Everyone!**

**Hand Hygiene is important to us, to protect the health and safety of everyone!**