Infection Control

What health care professionals need to know
Standard Precautions

• Implemented to decrease the risk of transmission of disease from recognized and unrecognized sources.
• Hand hygiene is an important component and one of the most important aspects of standard precautions
• Use of Personal Protective Equipment (PPE)

(World Health Organization [WHO], 2007)
Hand Hygiene
Technique

Hand Washing (40-60 seconds):

• Wet hands and apply soap
• Rub all surfaces of hands
• Rinse hands
• Dry hands thoroughly with a single use towel
• Use towel to turn off faucet
• Indicated when gloves or hands are visually soiled
• When caring for C. Difficile infected patients

(WHO, 2007)
Technique

Hand rubbing (20-30 seconds):

• Apply product (most are alcohol based)
• Cover all areas of hands
• Rub hands together until product is dry
• Indicated when hands or gloves are not visually soiled or in contact with bodily fluids
• NOT indicated when caring for patients with C. difficile infections

(WHO, 2007)
Indications for Hand Hygiene

• Before and after patient contact
• Immediately after taking gloves off
• Before handling invasive devices
• After touching any body fluids or open skin, even if gloves are worn
• Patient care, moving from a contaminated site to a “clean” area
• Touching inanimate objects near a patient

(WHO, 2007)
Personal Protective Equipment (PPE)
Types

• Gloves
• Gowns
• Facial Protection (masks, goggles, face shield, etc.)

(WHO, 2007)
Gloves

• Wear when touching a patient, bodily secretions, or contaminated surfaces
• Change between tasks, even on the same patient when moving from a contaminated site to a “clean” site
• Remove after use; before touching a noncontaminated object or another person
• Hand hygiene immediately after taking the gloves off

(WHO, 2007)
Gowns

- To protect skin from slashes or sprays of bodily fluids
- To protect clothing from contamination from bodily fluids
- Remove gown as soon as possible, and before contact with another patient
- Perform hand hygiene after removal

(WHO, 2007)
Facial Protection

Wear goggles, face shield, procedural mask, or facial shield to protect:

- Eyes
- Nose
- Mucous membranes

During activities that may produce splashes or sprays of any bodily fluids, once removed perform hand hygiene

(WHO, 2007)
Isolation Precautions
Contact Precautions

- Used to prevent the inadvertent transmission of infectious organisms
- Indicated for patients infected or colonized with multi-drug resistant organisms (MDROs)
- Single patient rooms are preferred
- Wear **gown and gloves** for all interactions with the patient; don before entry to room and discard before exiting

(Center for Disease Control and Prevention [CDC], 2009)
Indications for Contact Precautions

- C. difficile
- Lice
- MRSA (Methicillin Resistant Staph-Aureus)
- VRE (Vancomycin Resistant Enterococcous)
- Poliomyelitis
- Scabies
- Extensive wound drainage

(CDC, 2009)
Droplet Precautions

- Used to prevent transmission of pathogens spread through close respiratory contact or mucous membrane contact with infected respiratory secretions
- **Not infectious over long distances**
- Single patient rooms are preferred
- **Masks are worn** upon entry to patient room
- If patient needs to be transported, the patient wears a mask

(CDC, 2009)
Indications for Droplet Precautions

• Pharyngeal Diphtheria
• Influenza (seasonal, avian, and pandemic influenza)
• H. influenzae, type b known or suspected
• Meningococcal disease
• Mumps (infectious parotitis) and Rubella
• Pertussis

(CDC, 2009)
Airborne Precautions

- Used to prevent transmission of infectious agents that remain infectious over long distances when suspended in the air
- Single-patient, negative pressure room
- **Wear a mask or respirator** (N95 mask or higher) prior to entry
- Non-immune healthcare workers should not care for patients with vaccine-preventable airborne diseases

(CDC, 2009)
Indications for Airborne Precautions

- Measles (rubeola)
- Monkeypox
- Severe Acute Respiratory Syndrome (SARS)
- Tuberculosis
- Varicella Zoster (until lesions are dry and crusted)

(CDC, 2007)
Hospital Acquired Infections
(HAI’s)
MRSA

- Bacteria resistant to beta-lactam antibiotics
- Can be colonized without infection
- In the community mostly skin infections
- Life threatening infections occur in healthcare settings in wounds, blood, urinary tract, etc.
- Transmitted via bed linens, bed rails, bathroom fixtures, and medical equipment.
- Transmitted via the hands of healthcare providers that are colonized or from inadequate use of standard precautions

(CDC, Prevention of MRSA infections, 2011)
VRE

- Enterococcci are normal flora of the GI tract and female genital tract
- Can be colonized without disease
- Prolonged use of Vancomycin increases risk of developing a resistant infection
- Most infections occur in hospitals
- Often transmitted by caregivers
- Can become infected if a person touches a contaminated surface, and then has contact with another person

(CDC, Vancomycin-resistant Enterococci, 2011)
C. Difficile

- Bacteria shed in feces
- Prolonged use of antibiotics and the elderly are at greater risk
- Can become infected if a person touches a contaminated surface and subsequently touches their mouth
- Healthcare workers can spread the bacteria through hand contact

(CDC, Clostridium difficile in healthcare settings, 2011)


