

Infection Control & Prevention

For Clinical Volunteers

Volunteer Annual Review 2017

EXPOSURE CONTROL MANUAL

- This is your resource for Infection Control and Prevention issues, policies, and procedures.
- States that HCC adheres to the Centers for Disease Control and Prevention (CDC) practice recommendations for the prevention of the spread of infection.
- Located:
 - On the HCC Intranet
 - Forms Tower in Home Hospice
 - Main Carebase in the Mount Joy IPU
 - “Supplies to Go” area in the York Office

Standard Precautions

- Standard Precautions are a group of infection prevention practices that apply to all patients, regardless of suspected or confirmed infection status, in any setting where healthcare is delivered.
- These practices are designed to both protect the Healthcare Worker (HCW) and prevent the HCW from spreading infections to patients.

Staff and direct care volunteers are expected to fully comply with Standard Precautions in all patient situations, at all times.

Standard Precautions

Standard Precautions include:

- Hand Hygiene
- Use of personal protective equipment (e.g., gloves, gowns, masks, eye protection or face shield)
- Safe injection practices
- Droplet precautions as necessary
- Respiratory hygiene/cough etiquette



Personal Protective Equipment (PPE)

- Wearable equipment that is intended to protect Healthcare Workers from exposure to or contact with infectious agents.
 - Examples include gloves, eye protection, gowns, masks, disinfectant towelettes and waterless hand sanitizer.

Gloves

- Gloves are worn where it is anticipated that hand contact with blood, other potentially infected material, not-intact skin, and mucous membranes will occur and when skin of the staff member is not intact.
 - Do not wear the same pair of gloves for the care of more than one patient
 - Replace gloves as soon as practical when they become contaminated, torn, punctured or when their ability to function as a barrier has been compromised
 - Do not wash gloves for the purpose of reuse
 - Perform hand hygiene immediately after removing gloves



Respiratory Hygiene/Cough Etiquette

- Respiratory hygiene strategies are targeted at patients, family members or friends with undiagnosed transmissible respiratory infections when entering a home or healthcare facility and apply to any person with signs of respiratory illness.
- Signs of respiratory illness including cough, congestion, rhinorrhea, or increased production of respiratory secretions.



Respiratory Hygiene/Cough Etiquette

To help prevent the spread of infection, persons with a cough should:

- Cover their mouths/noses when coughing or sneezing
 - Sneeze/cough into crook of arm
- Use tissues to contain secretions and dispose of them in the nearest waste receptacle after use.
- Perform hand hygiene after having contact with respiratory secretions and contaminated objects/materials.
- Spatial separation, ideally greater than 3 feet from persons with respiratory infections in common areas when possible.

Transmission-Based Precautions

- Transmission-Based Precautions are designed to supplement standard precautions in patients with documented or suspected infection/colonization of highly transmissible or epidemiologically important pathogens.
- For diseases that have multiple routes of transportation, more than one Transmission-Based Precautions category may be used.
- When used either singularly or in combination, they are always used *in addition to* Standard Precautions.



Categories of Transmission-Based Precautions

- The three categories of Transmission-Based Precautions include:
 - Contact Precautions
 - Droplet Precautions
 - Airborne Precautions

Contact Precautions

- Designed to reduce the risk of transmission of microorganisms by direct or indirect contact.
 - Direct contact involves the physical transfer of microorganisms to a susceptible host from an infected or colonized person.
 - Indirect contact involves contact of a susceptible host with a contaminated intermediate object.
- Examples of diseases: GI infections, wound and skin infections and colonization with multidrug-resistant bacteria (MRSA).

Special Factors with Contact Precautions

- Gloves for any contact with patient or touching anything in the room.
- Gown if likely that clothing will be in contact with any patient or surface in the patient care environment.
- Mask and eye protection if splashing of any contaminated substance is likely.
- Care items such as B/P cuffs, stethoscopes should be disinfected after use.

C-difficile (C-diff)


This pathogen is a major cause of healthcare-associated diarrhea and identified as the most commonly identified causative agent of antibiotic-associated diarrhea.

Factors that contribute to outbreaks:

- Environmental contamination
- Hand carriage by healthcare workers to other patients
- Exposure of patients to frequent courses of antimicrobial agents (clindamycin, vancomycin, and fluroquinolones)

Hepatitis B (HBV) and Hepatitis C (HCV)

- Hepatitis B is a liver disease caused by the hepatitis B virus (HBV).
- Hepatitis C is a liver disease caused by the hepatitis C virus (HCV).
- HBV and HCV can cause lifelong infection, cirrhosis (scarring) of the liver, liver cancer, liver failure, and death.
- HBV and HCV are spread in healthcare settings when blood or other body fluid from an infected person enters the body of a person who is not infected.
 - In a healthcare setting, contact is primarily through contaminated needles, syringes, or other sharp instruments.



Multi Drug-Resistant Organisms (MDROs)

- MDROs are defined as microorganisms, predominantly bacteria, that are resistant to one or more classes of antimicrobial agents.
- Although the names of certain MDROs describe resistance to only one agent (e.g., MRSA, VRE), these pathogens are frequently resistant to most available antimicrobial agents .
- Increased lengths of stay, costs, and mortality have all been associated with MDROs.

Multi Drug-Resistant Organisms (MDROs)

- Prevention of antimicrobial resistance depends on appropriate clinical practices that should be incorporated into all routine patient care.
- These include:
 - Improvements in hand hygiene
 - Use of Contact Precautions
 - Education
 - Enhanced environmental cleaning
 - Improvements in communication about patients with MDROs within and between healthcare facilities

Droplet Precautions

- Designed to reduce the risk of droplet transmission of infectious agents. Infectious agents are released when the infected person sneezes or coughs and large droplet spray may spread as far as three feet.
- Examples of diseases: Influenza, meningococcal meningitis, mumps and infections caused by multi-drug resistant *Streptococcus pneumoniae*.



Special Factors with Droplet Precautions

- Mask is required when delivering patient care in droplet precautions.
- If substantial spraying of respiratory fluids is anticipated, gloves, gowns and goggles should be worn.
- Patient should be taught to cover their nose and mouth when coughing or sneezing.

Influenza (Flu)

- The flu is a contagious respiratory illness caused by influenza viruses that infect the nose, throat, and lungs.
- It can cause mild to severe illness, and at times can lead to death.
- The best way to prevent the flu is by getting a flu vaccine each year.
- The flu virus is spread mainly by droplets made when people with flu cough, sneeze or talk.
- Most healthy adults may be able to infect others beginning 1 day *before* symptoms develop and up to 5 to 7 days *after* becoming sick.
- Some people, especially young children and people with weakened immune systems, might be able to infect others for an even longer time.



Airborne Precautions

- Designed to reduce the risk or eliminate the airborne transmission of infectious agents. The infectious particles are so small that they can remain suspended in the air for long periods of time and are carried on air currents.
- Examples of diseases: chickenpox, measles and tuberculosis.



Special Factors for Airborne Precautions

- Private room with special ventilation; door must be kept closed.
- The patient should stay in the room. If the patient leaves the room they should wear a mask.
- Respirators are worn by personnel if the patient has an airborne illness.
- Gloves are worn when in contact with respiratory secretions.
- Patient should be taught to cover their nose and mouth when coughing or sneezing.

Mycobacterium Tuberculosis (TB)

- Tuberculosis (TB) is caused by a bacterium called Mycobacterium Tuberculosis. The bacteria usually attack the lungs, but TB can attack any part of the body such as the kidney, spine, and brain.
- TB is spread through the air from one person to another.
- TB bacteria are put into the air when a person with the disease coughs, sneezes, or speaks.



Human Immunodeficiency Virus (HIV)

- Human immunodeficiency virus (HIV) is the bloodborne virus that can lead to acquired immune deficiency syndrome (AIDS).
- HIV destroys blood cells called CD4+ T cells, which are crucial to helping the body fight disease.
- This results in a weakened immune system, making persons with HIV or AIDS at risk for many different types of infections.
- Proper sterilization and disinfection procedures are required to prevent infection risks.

Safe Injection Practices

Safe injection practices include:

- Use of sterile, single-use disposable needles and syringes for each injection given
- Prevention of contamination of injection equipment and medication
- Use of single dose medication vial instead of multi-dose vials
- Use of safety devices as available

NEVER RECAP, BEND, OR BREAK A NEEDLE!

Transmission Risks Associated with...

- **Home Care** - The main transmission risk to home care patients are from an infectious healthcare worker or contaminated equipment
- **Long Term Care** - Outbreaks have been caused by various viruses and bacteria. Risk factors include:
 - Age-related declines in immunity
 - Immobility
 - Incontinence
 - Dysphagia
 - Chronic disease
 - Poor functional status

Environmental Measures

- Cleaning and disinfecting patient-care areas, especially those closest to the patient is very important.
- These include:
 - Bedside tables
 - Commodes
 - Doorknobs
 - Sinks
 - Surfaces in close proximity to the patient

Biohazardous Waste

- All materials contaminated with blood or body fluids is considered biohazardous waste.
- Disposal in Inpatient Unit
 - Biohazardous trash containers are located in each patient room and in the soiled utility rooms
- Disposal in Home Hospice
 - According to PA law, anything contaminated with blood or body fluids are NOT considered biohazardous waste, but ***must*** be double bagged before being placed in the household trash. Staff are responsible to educate patients and families on the proper way to dispose of contaminated waste.

Biohazardous Spills

Inpatient Unit

- Biohazard Spill Kits are located in the “O” rooms

Home Hospice

- Use a bleach solution of 1:10 (1/4 c bleach : 2 ¼ c water)
- Make only as much as needed as solution denatures after 24 hours



Lab Specimens

All laboratory specimens are transported in a sealed biohazard bag.



Disposal of Sharps

- Always use care when handling needles and sharps
- Dispose of needles and sharps in a sharps container or puncture-resistant, plastic container (ex. empty detergent bottle with a screw-on cap) immediately after use
- Home Hospice:
 - When the sharps container/plastic container is full, close the container with its original lid and secure with heavy duty tape.
 - Place the tightly sealed/taped container in a bag and discard it with the household trash. DO NOT place it with the recyclables.

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Disposal of Sharps

- Inpatient Unit
 - Sharps containers are located in each patient room and in the medication room
 - Do not fill containers above the 'fill' line
 - When fill line is reached, close, secure and dispose

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Bag Technique

- Bags are to be transported on the seat of the car
- In the home, bag is placed on a clean, hard, dry surface
- When a clean, hard, dry surface is not available
 - Place bag on paper towels, newspaper, or plastic bag
 - Hang bag on a door knob or back of a non-upholstered chair
- Hand washing supplies are kept in an outside pocket of the bag
- Hands are washed each time the bag is entered
- Bag is placed away from children and pets and always kept closed

References

- Center for Disease Control and Prevention (CDC). (2016). Healthcare-associated Infections. Retrieved from <http://www.cdc.gov/hai>
- Hospice & Community Care 2017 Exposure Control Manual, Methods of Prevention and Control Precautions
- Massachusetts Department of Higher Education
<http://www.mass.edu/mcnpcs/orientation/m3Transmission.asp>