

LEARNING MODULE:

**INFECTION CONTROL  
BLOODBORNE PATHOGENS  
ISOLATION PRECAUTIONS  
PHARMACEUTICAL WASTE**

For Clinical Students & Instructors

*Greater Green Bay Healthcare Alliance*

*ggbha.org*

*Reviewed & Updated 6/14/2018*

**REMINDER: This learning module must be reviewed by students and faculty annually (once per year).**

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IMPORTANT!!!

When reading the modules, please know you are accountable for understanding the information presented. If you have any questions, you will need to talk to your instructor/school/facility representative(s) to find out the answer(s) before going any further.

# Objectives

At the completion of this learning module, you should be able to:

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- A. Identify basic understanding of infection control concepts.
- B. Identify how and when to wash hands.
- C. Identify bloodborne pathogens.
- D. List the different routes bloodborne pathogens are spread.
- E. Identify how you would prevent the spread of bloodborne pathogens using standard precautions.
- F. Outline the types and use of personal protective equipment (PPE).
- G. Identify the action you would take if you had a bloodborne pathogen exposure.
- H. Identify different types of isolation and PPE to be worn.

# Basic Handwashing – Why?

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Good handwashing:

- A. Prevents infections.
- B. Stops the spread of germs and disease.
- C. Protects you, your patients and co-workers.

# Handwashing

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## Use soap and water:

- When hands are visibly soiled or contaminated with blood/body fluids.
- After using the alcohol-based gel/foam approximately 5-10 times due to residue of the gel ingredients.



# Infection Control: Key Points

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## **Use an alcohol based, waterless gel or foam:**

- A. Before entering and upon leaving a patient's room.
- B. Before and after your work shift.
- C. Before and after patient contact.
- D. Before and after using gloves.
- E. Before preparing or administering medication (if applicable to role).
- F. After blowing nose or covering a sneeze (if visibly soiled, wash with soap and water).
- G. After contact with body fluids as long as not visibly soiled.
- H. After contact with items used for patient care.

# Infection Control: Key Points

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## Fingernails:

- A. Keep nails trim and clean.
- B. No nail polish.
- C. No artificial nails; acrylic, gel coat, etc.



# Infection Control: Standard Precautions

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- Use standard precautions with **every** patient.
- Standard precautions include wearing protective items such as gloves, gown or face protection when in contact with any bodily fluid or blood.



# Infection Control: Reusable Equipment

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Clean, disinfect or reprocess reusable/non-disposable equipment before use by another patient.

**Examples:** *stethoscope, glucose meter, automatic blood pressure cuff, O<sub>2</sub> sat. monitor, etc.*

# Infection Control: Personal Protective Equipment (PPE & PAPR)

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## These may include:

- A. Gloves
- B. Goggles, safety glasses, face shields
- C. Fluid resistant gowns
- D. Resuscitative pocket masks and bag-valve-mask (ambu bag)
- E. Positive Air Pressure Respirator (PAPR)

**You are required to use Personal Protective Equipment (PPE) to protect yourself. Know where PPE is kept.**

# Infection Control: Sharps

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**You can prevent injury while handling sharp medical instruments by:**

- A. Using facility approved safety devices.
- B. Always activating safety devices before disposal.
- C. NEVER recapping a used needle.
- D. Immediately disposing of sharps into a sharps container.

# Bloodborne Pathogens

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- Bloodborne pathogens are microorganisms such as viruses or bacteria that are carried in blood and can cause disease in people.
- There are many different bloodborne pathogens including malaria, syphilis, brucellosis, Hepatitis and HIV.

# Bloodborne Pathogens

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Bloodborne diseases **spread** basically three ways:

- A. Blood to blood contact
- B. Sexually
- C. From infected mother to infant (probably at birth)

# Bloodborne Pathogens

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**ALL blood and body fluids** are potentially infectious and can cause the spread of the following serious diseases:

- A. HIV (the virus that causes AIDS)
- B. Hepatitis B
- C. Hepatitis C

# Bloodborne Pathogens

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Effective use of good infection control and work practices:

- A. Hand hygiene
- B. Use of safety devices (e.g., self-sheathing needles)
- C. Proper handling and disposal of sharps
- D. Appropriate use of PPEs

You must use **STANDARD PRECAUTIONS** every time you have the possibility of exposure to diseases, blood, or body fluids.

# Blood Exposure

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## What is a blood exposure?

- A. A cut or needle stick with a sharp item contaminated with blood or body fluid.
- B. A splash to eyes, nose, or mouth with blood or body fluid.
- C. A blood contact on broken skin (rash or chapped).





# Blood Exposure

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- What if you are exposed to the blood or body fluids of a patient?
- What should you do?

## **Immediately following an exposure to blood:**

- A. Wash needle sticks and cuts with soap and water.
- B. Flush splashes to the nose, mouth, or skin with water.
- C. Irrigate eyes with clean water, saline, or sterile irrigants.

# Blood Exposure

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- Report the exposure **promptly** to your instructor, department supervisor, employee health, or infection preventionist at the facility.
- Follow the facility's policy for reporting (incident report) the exposure.

# Isolation Precautions - Equipment

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Equipment used for a patient in isolation must be kept in the room until it is no longer needed.

***Examples include:*** stethoscope, glucose meter, blood pressure cuff, O<sub>2</sub> sat. monitor, commode, thermometer, etc.

# Isolation Precautions

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- Sometimes patients enter into our facilities with a contagious disease that can easily be spread to other patients or caregivers.
- With these infections, we take measures in addition to standard precautions to prevent the spread of these germs.

# Isolation Precautions

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- There are 3 kinds of isolation precautions:
  - A. Contact
  - B. Droplet
  - C. Airborne
  
- Each facility will provide instructions to remind you what PPE to put on, based on the precaution, **prior to entering the room**. You are responsible for following these PPE instructions.
  
- Each facility may have other precautions that are patient specific (i.e., chemo, reverse).

# Isolation Precautions: Contact

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- A. Contact precautions prevent the transmission of germs that can be spread by **direct** or **indirect** patient contact or on environmental surfaces. **Example:** *wound with uncontained drainage*
- B. When entering a patient room, disposable gloves and gowns are worn for precautions, regardless of whether or not there will be direct contact.
- C. Some facilities will place patients with resistant organisms into isolation. **Example:** *Methicillin-resistant Staphylococcus Aureus (MRSA)*. Refer to each facility for guidance.

# Isolation Precautions: Contact PPE

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## Before entering the room:

- A. Wash hands and put on gloves.
- B. Put on an isolation gown. Tie the gown at the neck and waist.
- C. The gloves should cover the cuffs of the gown.

## Before leaving the room:

- A. Remove gloves and discard them in the wastebasket.
- B. Do **NOT** untie the gown. Breakaway the gown, pulling the gown from the shoulders.
- C. After removing the gown, discard it in the wastebasket.
- D. Sanitize hands with alcohol hand rub or wash with soap and water if visibly soiled.
- E. If the patient has or is suspected of having clostridium difficile (C-Diff), only hand wash with soap and water. Alcohol hand rub is ineffective.
- F. Leave the room.

# Isolation Precautions: Droplet

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- Droplet precautions prevent the spread of germs from the respiratory tract which are generated by the patient during coughing, sneezing or talking.

*Examples: Influenza and specified pneumonias in adults.*

- Masks are worn for droplet precautions upon entering room.





# Isolation Precautions: Droplet PPE

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## **Before entering the room:**

- Put on a surgical mask.

## **Before leaving the room, remove PPE in this order:**

- Remove your surgical mask. Discard the mask in the wastebasket in the patient's room.
- Sanitize your hands with alcohol hand rub **and** soap and water.

# Isolation Precautions: Airborne

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- Airborne precautions are used when the germs are spread long distances on tiny particles in the air.

***Examples: Measles, Chicken Pox, Active or Suspected Tuberculosis.***

- N95 respirator masks (specially fitted) or PAPRs are worn for airborne precautions.



N95



PAPR

# Isolation Precautions: Airborne

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- A patient with suspected or confirmed TB or other airborne disease must be placed in a **negative pressure** room.
- You **cannot** go into a negative pressure room without a special respirator when airborne precautions are in place.

# Precautions - Immuno Suppressed Patients

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- A. Some patients may have an increased chance of acquiring infections.
- B. Good hand washing is **mandatory**.
- C. Standard precautions are used.

***Example:*** A chemotherapy patient may have low immunity to disease. Using excellent standard precautions and hand washing will help prevent transmission of illness.

**Check with your instructor or staff for additional information.**

# **INFECTIOUS & HAZARDOUS PHARMACEUTICAL WASTE**



# Objectives

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- A. Identify infectious waste and hazardous pharmaceutical waste.
  
- B. Identify proper disposal procedures for infectious waste and pharmaceutical waste.

# Infectious Waste

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Red bag all items containing blood or body fluids that are:

- A. Drippable
- B. Pourable
- C. Squeezable
- D. Flakable

# Infectious Waste

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## **Examples of high-risk body fluids include:**

- A. Blood
- B. Semen
- C. Vaginal secretions
- D. Pleural fluid
- E. Amniotic fluid
- F. Spinal fluid
- G. Any other bodily fluid suspected of being infectious



# Infectious Waste

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## Examples of items that do not belong in a red bag:

- A. IV Bags and lines without visible blood
- B. PPE without blood
- C. Packaging materials
- D. Empty bedpans, emesis basins, wash basins and urinals

# Hazardous Pharmaceutical Waste

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- A. Products used in the healthcare industry such as chemotherapy drugs, some pharmaceuticals, etc. They can harm the environment and human health if not disposed of properly.
- B. Some facilities may have designated containers for medication and packaging disposal.
- C. Medication collection sites are available in most communities.
- D. Check with your instructor or facility staff prior to disposing.

# Hazardous Pharmaceutical Waste

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- The Environmental Protection Agency (EPA) and Department of Natural Resources (DNR) are beginning to impose fines on facilities who do not dispose of pharmaceutical wastes properly.
- Check with your instructor or facility staff on how to dispose of any hazardous pharmaceutical wastes.

# References

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- A. CDC - Bloodborne Pathogen Protection
- B. CDC - Infection Control Guidelines
- C. CDC - Guidelines for Isolation Precautions
- D. CDC - Exposure to Blood

Source: [www.cdc.gov](http://www.cdc.gov)