

LEARNING MODULE:

INFECTION CONTROL BLOODBORNE PATHOGENS ISOLATION PRECAUTIONS PHARMACEUTICAL WASTE

For Residents & Instructors

ggbha.org

Updated 6/18/2018

This learning module must be reviewed by residents and faculty annually.

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IMPORTANT REMINDER!

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/residency program/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.

Handwashing

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- A. Prevents infection.
- 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 patient contact.
- C. Before and after your work shift.
- 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, O₂ 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, O2 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

- 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 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 a 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.

INTECTIOUS & HAZARDOUS PHARMACEUTICAL WASTE

Objectives

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- Identify infectious waste and hazardous pharmaceutical waste.
- 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: <http://www.cdc.gov>