Bloodborne Pathogens (BBP)

Corporate Safety
Infection Prevention
Employee Health

This self-directed learning module contains information you are expected to know to protect yourself, our patients, and our guests.

Target Audience: All Teammates

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Instructions:

The material in this module is an introduction to important general information and procedures regarding bloodborne pathogens. After completing this module, contact your immediate supervisor to obtain additional information specific to your department or work responsibilities.

- Read this module.
- If you have any questions about the material, ask your supervisor.
- Complete the online posttest for this module.
- The Job Aid on page 10 should be customized to fit your department’s policies and procedures and then used as a quick reference guide.
- Completion of this module will be recorded under My Learning in PeopleLink.

Learning Objectives:

When you finish this module, you will be able to:

- Define bloodborne pathogens.
- Describe ways you could become exposed to bloodborne pathogens.
- Describe ways to protect yourself from exposure.
- State where to get help if exposed.
- Describe how to obtain more information about bloodborne pathogens.
Bloodborne Pathogens (BBP)

**Bloodborne Pathogens** are disease-producing organisms in the blood and other body fluids that cause illness and sometimes death. CHS has a Bloodborne Pathogen policy including an **Exposure Control Plan** that follows regulation (29 CFR 1910.1030) set up by the federal Occupational Safety and Health Administration (OSHA) that explains how to work safely and how to protect yourself and others from bloodborne pathogens. It also tells you what to do if you are exposed to bloodborne pathogens or Other Potentially Infectious Materials (OPIM) and to reduce your risk from these exposures.

The Bloodborne Pathogen Policy CHS 7.01 can be found in the Safety Management Program Manual (SMPM). The plan must be accessible to employees and describes how your facility will use engineering and work practice controls, ensure use of personal protective equipment, provide training, provide medical surveillance, provide Hepatitis B vaccinations, and use hazard signs and labels. A copy of the regulatory text of the OSHA Bloodborne Pathogen Standard (29 CFR 1910.1030) will also be attached to the policy. You may obtain a copy from your supervisor or by accessing the SMPM on PeopleConnect.

**Common Bloodborne Diseases**

Approximately 5.6 million workers in health care and other facilities are at risk of exposure to bloodborne pathogens such as:

- Human immunodeficiency virus (HIV-the virus that causes AIDS)
- The Hepatitis B virus (HBV)
- The Hepatitis C virus (HCV)

**Symptoms of HIV**

The symptoms of HIV are:

- Flu-like symptoms
- Fever
- Headache
- Weakness
- Sore throat
- Diarrhea

The majority of people infected with HIV do not show symptoms for many years. Later, the victim may develop types of cancer or infections, including pneumonia that the body can no longer fight off.
Symptoms of Hepatitis B & C

The symptoms of Hepatitis B & C are:

- Mild flu-like symptoms
- Fatigue
- Nausea
- Loss of appetite
- Stomach pain
- Jaundice (yellowing of the skin and eyes)
- Darkening of the urine

Hepatitis B & C infects the liver and can develop serious or fatal problems such as cirrhosis, liver cancer, or chronic liver disease.

Transmission of Bloodborne Pathogens

OPIM are body fluids which may transmit bloodborne pathogens. Common examples of OPIM are:

- Blood
- Semen
- Vaginal secretions
- Amniotic fluid
- Cerebrospinal fluid
- Any body fluid that is visibly contaminated with blood.

Exposure

You may be exposed to bloodborne pathogens in a healthcare setting through:

- Needle-sticks during a procedure or clean up
- Cuts from other contaminated object(s) that can penetrate the skin (scalpels, broken glass, etc.)
- Splashes to your eyes, nose, or mouth
- Dry, cracked, or broken skin that comes in contact with contaminated blood and other potentially infectious materials
- You may also be exposed to bloodborne pathogens away from work if you have direct contact with blood or body fluids, or have unprotected sex
**Hepatitis B Vaccine**

The Hepatitis B vaccine is available through Employee Health to teammates who are at risk for exposure to blood or OPIM. It is offered free of charge and is a safe, three-dose series vaccine given via injection that is 80-95% effective in preventing Hepatitis B. After completion of the Hepatitis B series Employee Health will draw a titer (6-8 weeks after series completion to test for antibody to Hepatitis B). Teammates who decline the Hepatitis B vaccine and/or the Hepatitis B titer testing must sign a declination statement. If you change your mind at some point in the future, then you can always return to Employee Health to receive the Hepatitis B vaccine and titer free of charge.

**Personal Protective Equipment (PPE)**

Personal Protective Equipment (PPE) is equipment or specialized clothing that protects you from contact with blood or other potentially infectious materials. Wearing appropriate personal protective equipment is not only your best option—it’s your only option. **WEAR IT!**

Use PPE appropriate for the situation. Some examples of PPE include:

- Gloves
- Masks
- Gowns
- Headcovers
- Eye wear (goggles)
- Face shields
- Shoe covers
- Disposable mouth pieces and resuscitation devices

If you do not use your PPE correctly, then it will not protect you like it should.

- Use appropriate PPE each time you perform a task, where it is reasonable to anticipate exposure to blood or OPIM (e.g. contact with contaminated laundry).
- Be trained to use the equipment properly and do not wear anything that is damaged (e.g. gloves torn or punctured).
- Gloves and other PPE must fit properly.
- Do not use petroleum or mineral oil-based skin care products when wearing latex gloves. These products can cause gloves to break or lose their protective barrier and may allow germs to get on your skin.
- Remember to cover eyes, nose, and mouth when a splash to the face may occur.
- Make sure the eye protection used has side panels and that masks are secured on the nose and tight against the side of the face. Gaps between the face and the mask mean that germs may pass unfiltered through the open spaces.
If, when wearing equipment, it is penetrated by blood or other potentially infectious materials, remove it as soon as possible.

Before leaving the work area, remove all protective equipment and place it in the designated area or container for washing, decontamination or disposal.

**Standard Precautions**

Many people carry bloodborne infections without even knowing it, so it is difficult to identify patients who may transmit infection.

**Standard Precautions** requires you to treat all human blood and body fluids as if they were infected with a bloodborne pathogen.

*Use Standard Precautions to Protect Yourself from Exposure to Blood and Body Fluids.*

Adopt these practices to protect yourself from exposure to potentially harmful blood or body fluids:

1. **Take care of yourself with good personal hygiene at work.**
   - Check your hands for any cuts, scrapes, or broken skin and cover, if possible.
   - DO NOT store food, eat, drink, apply cosmetics or lip balm, or handle your contact lenses in work areas where you could be exposed to blood or body fluids.
   - DO NOT store your food or drinks in refrigerators or freezers that are used for blood or body fluids.
   - DO NOT touch your nose, eyes, or mouth when you are in a contaminated work area.
   - Use tongs, forceps, broom, and dust pan to clean up broken glass. NEVER use your hands.
   - Remove all PPE as soon as the procedure is completed.
   - Always perform hand hygiene after you remove PPE.
   - Always minimize splashing, spraying, spattering and generation of droplets.

2. **Clean blood or body fluid spills correctly.**
   - Wear gloves and/or other personal protective equipment.
   - Remove visible material, then clean the surface with a premixed 1:10 bleach solution or an EPA/hospital approved disinfectant such as Sanimaster 4.
   - Large blood spills must be dry wiped first to remove major spillage before cleaning with disinfectant.
   - Notify Environmental Services for the cleaning of large blood spills or cleaning of blood spill from carpet or upholstery.
3. Dispose of Regulated Medical Waste (Biohazard Waste) items correctly.

- Place contaminated items in red trash containers or the small cans labeled "biohazard." Contaminated items refer to those having the presence of liquid, semi-liquid, or caked/dried blood or OPIM on an item or surface. Refer to the CHS Waste Disposal Guide, available on PeopleConnect, for appropriate disposal instructions for various medical waste items.

4. Use and dispose of needles and sharps correctly.

- Do not bend, recap, or remove contaminated needles. **NOTE:** exceptions only apply to circumstances where the action is required for a specific medical procedure. These specific actions require written justification and recapping must be accomplished through a recapping device or a one-handed technique (**hand to hand recapping is prohibited**).
- Safety device must be engaged every time a sharp is used.
- Place sharps and needles in appropriate sharp containers or needleboxes as soon as possible after use.
- Discard glass vials, medicine containers, and blood tubes in sharps container. **NOTE:** Do not dispose of broken mercury thermometers in the sharps container. Follow your facility's mercury spill clean-up procedure.
- Do not overfill needle boxes. When the box is two-thirds full, replace with a new box.
- Do not pass individual instruments by hand. Instead pass trays of surgical instruments implementing a hands-free zone or a neutral zone.

5. Safety Devices MUST be used

Based on the OSHA Bloodborne Pathogens standard and the CHS Bloodborne Pathogen Policy, the use and activation of engineering controls is **MANDATORY** when it will reduce the employee exposure either by removing, eliminating, or isolating the hazard. Engineering controls used within CHS include, but are not limited to the following:

- Retractable fingerstick devices
- Retractable IV start needles
- Self-sheathing syringes
- Blunt suture needles
- Blood Tubes
- Safety scalpels
- A needleless IV System
- Sharps disposal containers
Bloodborne Pathogens

- And other Sharps with Engineered Sharps Injury Protections (SESIP) or non-needle sharps specific to a department – “Non-needle sharp or a needle with a built-in safety feature or mechanism that effectively reduces the risk of an exposure incident”.

WHEN using SESIP, remember the acronym “SAFER”:

- **S** is for Select the correct device
- **A** is for Ask (if you do not know how to use a device).
- **F** is for Focus and think through the procedure before you do it.
- **E** is for Execute the procedure; remember to trigger the safety characteristics
- **R** is for Remove the device after activating the safety feature

The CHS Sharps Safety Committee ensures that a systematic process, involving both management and front-line, non-managerial employees (“end users”) in the identification and selection of appropriate and effective engineering controls. As new engineering control technologies become available, CHS will continue to evaluate and select appropriate engineering controls to further reduce exposure incidents.

1. **Be careful with contaminated linen.**
   - Handle contaminated linen as little as possible.
   - DO NOT rinse soiled linen before bagging.
   - If linen is very soiled and wet, place it in a leak-proof bag and take it to the linen holding area or linen chute immediately.

2. **Watch for bloodborne pathogens warning labels which are orange or orange-red with the biohazard symbol.**
   - Bags or containers labeled with the biohazard warning label contain blood or OPIM.
   - The label may also be on contaminated equipment, or on doors leading to contaminated areas such as a biohazard storage room.
   - Warning labels must be posted on refrigerators and freezers containing blood and OPIM and other containers used to store, transport, or ship blood or OPIM.
   - Remember to wear gloves if you need to open a contaminated container or if you have to handle contaminated equipment.

*If you are exposed to blood or body fluids…*

What to do if you are exposed to blood or body fluids:

- Wash the area with soap and water.
• If your nose or mouth has been splashed, flush these areas with water. For eye splashes flush eyes immediately with at least 500cc sterile saline.
• Notify the area supervisor immediately.
• Complete the Report of Occupational Injury and Illness (ROII).
• If you have been exposed to blood or body fluids of a known HIV positive or highly suspected patient, report your exposure immediately (within 2 hours) to Employee Health. Any other exposures to blood and body fluids must be reported within 24 hours.
• Employee Health will provide you a confidential medical evaluation, and with your consent, blood tests, post exposure preventive treatment and follow-up counseling.

REPORT ALL EXPOSURES! THIS IS VERY IMPORTANT FOR YOUR HEALTH!

If you have any questions about Standard Precautions or Bloodborne Pathogens, contact the Infection Prevention office or Employee Health at your facility.

Also, if you have a question about bloodborne pathogens as you work through this learning module, you can reach the CHS Nurse Advice Line anytime by calling 800-357-0327 or 704-512-7887.
JOB AID

1. The three most common bloodborne diseases you could be exposed to in a healthcare setting are:
   - HIV
   - Hepatitis B
   - Hepatitis C

2. You may be exposed to bloodborne pathogens in a healthcare setting through:
   - Needle-sticks
   - Handling contaminated or used equipment and blood tubes
   - Splashes to your eyes, nose, or mouth
   - Dry, cracked, or broken skin that comes in contact with potentially infectious body fluids

3. To protect you from exposure to potentially harmful blood or body fluids:
   - Take care of yourself with good personal hygiene at work.
   - Clean up blood or body fluid spills correctly.
   - Dispose of contaminated items correctly.
   - Use and dispose of needles and sharps correctly.
   - Be careful with contaminated linen.
   - Safety device must be engaged every time a sharp is used.

4. If you are exposed to blood or body fluids:
   - Wash the area with soap and water.
   - If your nose or mouth has been splashed, flush these areas with water. For eye splashes flush eyes immediately with at least 500cc sterile saline.
   - Notify the area supervisor immediately.
   - Complete Report of Occupational Injury and Illness (ROI online).
   - Call Employee Health as soon as possible.
   - If you have been exposed to blood or body fluids of a known HIV positive patient, report your exposure immediately (within 2 hours) to Employee Health.

REPORT ALL EXPOSURES!
THIS IS VERY IMPORTANT FOR YOUR HEALTH!
Posttest

Name: _____________________________________________

Date: _____________________________________________

Circle the correct answer.

1. The three most common bloodborne diseases you could be exposed to in a healthcare setting are:
   a. Legionnaire’s Disease, Hepatitis C, TB
   b. Hepatitis B, Hepatitis C, HIV
   c. TB, HIV, Hepatitis C
   d. TB, Hepatitis B, Hepatitis C

2. CHS has a Bloodborne Pathogen policy including an Exposure Control plan that explains how to work safely and how to protect you from bloodborne pathogens. It also tells you what to do if you are exposed. The plan is located in the:
   c. Hazard Communication Program
   d. Personnel Policy and Procedure Manual

3. Examples of fluids that may spread bloodborne pathogens are:
   a. Blood
   b. Amniotic Fluid
   c. Cerebrospinal Fluid
   d. All of the above

4. Methods to prevent needlesticks include:
   a. Do not bend or recap contaminated needles
   b. Safety device must be engaged every time a sharp is used
   c. Do not overfill needle boxes
   d. All of the above

5. Which of the following cannot be used to clean up a blood spill?
   a. EPA/hospital approved disinfectant
   b. Sanimaster 4
   c. Premixed 1:10 Bleach solution
   d. Soap and Water
6. **If you are exposed to blood or other body fluids:**
   
   a. Wash the area with soap and water
   b. Complete Report of Occupational Injury or Illness (ROII) online
   c. Go to or call Employee Health as soon as possible
   d. Complete the Incident Report
   e. a, b, c
   f. All of the above

7. __________ requires you to treat all human blood and potentially infectious body fluids as if they were infected with a bloodborne pathogen.

   a. Standard Precautions
   b. PPE Precautions
   c. The Right-to-Know Standard
   d. The Safe Medical Device Act

8. **If you have been exposed to blood of a known HIV positive patient, report your exposure:**

   a. Immediately but within 2 hours
   b. Within 4 hours
   c. Within 24 hours
   d. Within 48 hours

9. **An example of an engineering control that is used to protect employees is:**

   a. Sharps Disposal Containers
   b. Self-sheathing syringes and other SESIPs
   c. Blunt suture needles
   d. All of the above

10. **During a task when a splash to the face may occur, you should wear:**

    a. Head cover, mask, gown
    b. Gown, mask, gloves, head cover
    c. Gloves, gown, head cover, mask, shoe covers
    d. Mask, face shield, gown, gloves, head cover

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