How to Use this Presentation

This presentation contains base material for use in an instructor-led training setting. You may modify this presentation to satisfy the specific training needs of your organization.

On some slides, the display text is supplemented with additional material in the slide notes.

This content is licensed for modification and use in a classroom setting. You may not redistribute this material in any form.
This training will satisfy the training requirements for initial employee training and is required annually thereafter.

For those employees who work with cultures of HIV, hepatitis B, hepatitis C, human blood, or other potentially infectious material (or OPIM) known to be infected with the above bloodborne pathogens, this will only serve as an introductory training and will not satisfy the additional requirements for working with these specimens.

For additional training on working with human blood and OPIM, contact your supervisor.
Questions

- If you have any questions on any of the content in this presentation, please email hr@succeedms.com.

- Do not use the above link to report any sharps injuries or exposure incidents. Contact your supervisor to report an incident.

- The above link will not assist with questions about bloodborne pathogen policies that are specific to your organization. If you have questions about your organization's policies, please consult your supervisor or your organization's safety officer.
Learning Objectives

- Common types in the workplace
- Who is at risk
- Sources
- Transmission
- Controls and practices that reduce exposure
- Steps to follow in the event of an exposure
Course Outline

1. Types of Bloodborne Pathogens
2. Bloodborne Pathogen Transmission
3. Exposure Control Plan
4. Personal Protective Equipment
5. HBV Vaccination
6. Emergency Response
7. Medical Recordkeeping
Overview

Know your risk of bloodborne pathogen exposure and the types of pathogens you may encounter.

**What you need to know:**

1. Definition of bloodborne pathogens
2. Who is at risk for exposure
3. Who is covered by OSHA’s Bloodborne Pathogens Standard
4. Types of bloodborne pathogens
Definition of Bloodborne Pathogens

• Disease-causing microorganisms in blood, bodily fluids, and tissues that can cause serious diseases in humans

• Examples:
  - Malaria
  - Syphilis
  - Brucellosis
  - Hepatitis B (HBV) and C (HCV)
  - Human immunodeficiency virus (HIV)
OSHA Requirements

OSHA’s Bloodborne Pathogens Standard:

- Protects employees with **occupational exposure**.
  - Occupational exposure means that the employee could be reasonably anticipated to come into **bodily contact** with blood and Other Potentially Infectious Materials (OPIM).

- Mandates safeguards and training requirements.

- **Does not** cover those who engage in “Good Samaritan” acts.
At-Risk Employees

- Physicians
- Nurses
- Emergency room personnel
- Orderlies
- Housekeeping personnel
- Laundry employees
- Dentists and other dental employees
- Laboratory and blood bank technologists and technicians
- Medical examiners
- Morticians
- Law enforcement personnel
- Firefighters
- Paramedics
- Emergency medical technicians
- Home healthcare employees
- Anyone providing first-response medical care
Hepatitis B Virus (HBV)

- Attacks the liver
- May cause fever, jaundice, abdominal pain, nausea, vomiting, loss of appetite, fatigue, or death
- Can become chronic or long-term
- Can lead to cirrhosis or liver cancer
- Transmits through sexual contact or exposure to infected blood or OPIM
- May be transmitted by carriers
- Can survive outside the body for up to seven days
- Has no cure
- Does have a safe, effective vaccine
Hepatitis C Virus (HCV)

- Has symptoms similar to HBV
- Frequently leads to chronic infection and liver disease
- May be life-threatening
- Has no cure or vaccine
- Can be transmitted by carriers
- Can survive outside the body for 16 hours to 4 days
Human Immunodeficiency Virus (HIV)

• Attacks the immune system
• Causes **acquired immunodeficiency syndrome (AIDS)**, a disease with no known cure
• Is very fragile and will not survive long outside of the human body
• Causes weakness, fever, sore throat, nausea, headaches, diarrhea, weight loss, swollen lymph glands, and a white coating on the tongue
Bloodborne Pathogen Transmission

Bloodborne pathogens are present in many different bodily fluids and can enter the body in various ways.

**What you need to know:**

1. Fluid and tissue pathogen sources
2. Common routes of entry
Pathogen Sources

- Infected blood or contaminated fluids
- Vaginal secretions and semen
- Cerebrospinal fluid
- Synovial fluid
- Pleural fluid
- Peritoneal fluid
- Amniotic fluid
- Unfixed tissue or organ
- Intentionally infected blood, cultures, or animal tissue
Common Routes of Entry

- A splash or splatter of blood or OPIM coming into contact with mucous membranes
- Entry directly into blood or muscle tissue via:
  - Injection from a needle
  - Cuts from other contaminated sharps
- Contact with exposed, broken skin
Common causes of infection from bloodborne pathogens include all of the following except _____.

- Needle-sticks
- **Touching someone who is sick**
- Cuts from contaminated sharps
- Contaminated fluids coming into contact with mucous membranes
Exposure Control Plan

The Exposure Control Plan (ECP) is designed to eliminate or minimize employee exposure to bloodborne pathogens. OSHA requires that employees have access to the ECP and the state’s bloodborne pathogen regulations.

What you need to know:

1. The components of an exposure control plan
2. Training requirements
3. Engineering and work practice controls
Components

The ECP:

- Identifies the jobs and tasks with potential occupational exposure.
- Includes guidelines for the following:
  - Training
  - Engineering and work practice controls
  - Personal protective equipment (PPE)
  - Post-exposure medical evaluation and follow-up
  - Medical surveillance
  - Vaccinations
  - Signs and labels
- Will be reviewed and updated annually.

Talk to your supervisor if you have any questions about your organization’s ECP.
Training

At the following times:

- At the time of the initial assignment
- Annually
- When existing tasks are modified or new tasks are required

OSHA requires that this training be free, understandable, and given during working hours.
Engineering Controls

- Removing the hazard or isolating the employee
- Most effective way to control exposure
- Examples:
  - Medical safety devices
  - Sharps disposal containers
Medical Safety Devices

- Self-sheathing needles
- Self-retracting needles
- Needleless systems
- Single-use scalpels
Sharps are objects that can penetrate skin, such as needles, scalpels, broken glass, capillary tubes, or the exposed ends of dental wires.

Potentially contaminated sharps must be disposed of in a sharps container immediately after use.

**Container requirements:**
- Readily accessible
- Red or labeled with a biohazard sign
- Leak-proof
- Puncture-resistant
- Closable
Sharps Containers

Safe practices:

- Keep the container upright.
- Regularly inspect the container.
- Replace it when it is two-thirds full.
- Close the container before moving or replacing it.
- If leakage is possible, transport the sharps in a secondary container.
- Dispose of the sharps containers as regulated waste, following local and federal requirements.

A sharps container with guards to prevent reach-in
Regulated Waste

**Examples:**

- Blood or OPIM in a liquid or semi-liquid form
- Contaminated items that could release blood or OPIM if compressed
- Items with dried blood or OPIM
- Contaminated sharps
Regulated Waste Containers

Place regulated waste in closeable, leak-proof containers.

Requirements:

- They must be appropriately labeled or color-coded.
- Close containers prior to transport, storage, or handling.
- If contamination occurs, place them inside a secondary container.
- Dispose of all regulated waste in accordance with federal, state, and local regulations.
Work Practice Controls

Work practice controls reduce the likelihood of exposure to bloodborne pathogens through processes.

**Recommended controls:**

- Cover any cuts or abrasions.
- When a potentially infectious material is present, do not:
  - Touch your face or mouth.
  - Eat.
  - Drink.
  - Smoke.
  - Apply cosmetics.
- Follow universal precautions.
Universal Precautions

- Treat all human blood or OPIM as if contaminated.
- Treat all materials with human blood or OPIM as if contaminated.
- Minimize handling and manipulation of contaminated materials.
Sharps Safety

Handle sharps carefully.

- Use forceps or another device to pick-up sharps.
- When handling needles:
  - Do not bend or break them.
  - Do not recap them.
  - Place them in a sharps container as soon as possible.
- If a sharps injury does occur:
  - Report it to your supervisor.
  - Record it in the sharps injury log.
Handling Blood or OPI M

- Do not store food and drinks in the same refrigerator or work space.
- Label the storage space.
- Minimize the creation of droplets, splash, or spray.
- Use secondary, leak-proof containers for storage and transportation.
- Decontaminate all equipment that may have come into contact with human blood or OPI M prior to shipping or servicing.

Mouth pipetting is prohibited.
Biohazard Warning Labels

**Biohazard warning labels must be placed on the following:**

- Containers of regulated waste
- Containers used to store, transport or ship blood or OPIM
- Refrigerators, freezers and other storage locations that contain blood and OPIM
- Laundry containers
- Sharps containers

Red bags or containers may be substituted for labels.
Decontamination

- Decontaminate work surfaces:
  - After the completion of any procedures involving blood or OPIM.
  - When surfaces are contaminated.
  - At the end of the work shift.
- Follow instructions on the product label.

A diluted bleach solution (1% household bleach) is considered an effective disinfecting agent.
1. Cordon off the area.
2. Put on the required PPE.
3. Place absorbent materials on the spill.
4. Pour disinfectant on and around the spill area.
5. Allow the disinfectant to sit for the required contact time.
6. Collect the absorbent material.
7. Wipe up excess disinfectant.
8. Place the absorbent material and disposable PPE in a biohazard bag.
Handwashing is one of the most important practices used to prevent the transmission of bloodborne pathogens.

- Wash hands or other exposed skin thoroughly as soon as possible after an exposure incident.
- Wash hands after removing PPE.
- Use antimicrobial soap.
- Do not use harsh or abrasive soap.
- An alcohol-based hand rub may be used if the hands are not visibly contaminated.
Personal Protective Equipment (PPE)

In potential exposure situations, always wear PPE appropriate to the task.

**What you need to know:**

1. The purpose of PPE
2. PPE use
3. Removal and cleaning procedures
Examples

- If blood or OPIM could splash, spray, or otherwise contact the eyes, nose, or mouth:
  - Face shields or masks
  - Eye protection, such as goggles
- For mouth-to-mouth resuscitation:
  - Mouth barriers or CPR masks
- Other PPE:
  - Gloves
  - Gowns, aprons, or laboratory coats
  - Boots or shoe covers

You must complete training on the use, maintenance, care, and limitations of all PPE used.
Safe Use and Removal

- Assure that the PPE fits.
- Inspect the PPE before use.
- Do not use any PPE that is torn, punctured, or soiled—it must be replaced.
- Remove PPE prior to leaving the work area.
- Follow universal precautions.
- Wash hands immediately after.
Contaminated Laundry

Contaminated laundry is either soiled with blood or OPIM or may contain sharps.

- Remove PPE and contaminated clothing as soon as possible.
- Place the items in approved and labeled laundry bags or biohazard containers.
- Do not rinse or sort them first.
- Never take them home to launder.
Contaminated Laundry

Laundry personnel:

- Handle laundry as little as possible.
- Water-soluble bags provide the greatest protection.
- If it could soak through, place it in secondary container and label it.
- Do not hold the laundry bags close to your body or squeeze them.
- Wear the appropriate PPE.
Question 12

Choose the most correct answer. What is the best way to minimize exposure to possibly contaminated laundry?

- Wash hands after handling.
- Decontaminate laundry with a diluted bleach solution.
- Handle laundry as little as possible and use PPE.
- Immediately dispose of all contaminated laundry in the trash.
The HBV Vaccine

Vaccinations serve as another level of protection. The HBV vaccine series consists of three shots which build immunity to HBV.

What you need to know:
1. Guidelines for Hepatitis B vaccination
2. Guidelines for opting out of vaccinations
Vaccine Requirements

- Offered to all employees at risk of exposure
- Free
- Performed by a licensed professional
- Within ten working days of the initial assignment
- At a reasonable time and in an accessible location

* Employers might also provide vaccination booster doses if it is recommended by the U.S. Public Health Service.
Opting Out of Vaccination

- You do not have to be vaccinated if:
  - You have already been vaccinated.
  - An antibody testing reveals your immunity.
  - You opt out after being offered the immunization.

- If you decline the vaccination, you must sign a declination form.

- It is possible to initially decline and later accept.

You are not required to participate in antibody prescreening programs to receive the vaccination series.
All of the following statements regarding hepatitis B vaccines are correct except that ______.

- The HBV vaccine series consists of three shots
- All employees are required to get the HBV vaccination
- HBV vaccinations will be administered by a healthcare professional
- Employees who are routinely exposed to bloodborne pathogens shall be provided the HBV vaccine series free of charge
Incident Response

Be prepared to respond to bloodborne pathogen exposure incidents quickly.

**What you need to know:**
1. Immediate response steps
2. Further follow-up
3. Recordkeeping requirements
Immediate Response

A bloodborne pathogen exposure incident involves either an injury or contact between blood or OPIM and a vulnerable part of the body, such as the mouth, the eyes, mucous membranes, or broken skin.

If an exposure occurs:

- Wash the exposed area thoroughly with soap and running water. Use non-abrasive, antimicrobial soap.
- Flush the nose, mouth, or skin with splashes of water.
- Irrigate eyes with water or saline.
- Report the exposure immediately.
- Seek medical attention.
Further Follow-Up

- Immediate, confidential medical evaluation and follow-up at no cost
- Blood testing
- Risk counseling
- Post-exposure protective treatment for diseases
- A written opinion of the findings within 15 days of the evaluation
- Preventive medical treatment for HBV
Recordkeeping Requirements

For every exposure incident, the employer must document information about the incident and the source employee.

This information will be kept confidential and will not be disclosed or reported without the employee’s written consent unless required by law.

The following information will be required:

- Name and social security number
- Hepatitis B vaccination status
- Results of examinations, medical testing, and post-exposure evaluation
- Follow-up procedures
- Information provided to the health care professional
- The health care professional’s written opinion

An additional log will be kept specifically for sharps injuries. It will also be maintained in a way that assures employee privacy.
If you believe you have been exposed to a bloodborne pathogen, what should you do first?

- Get vaccinated.
- Wait and see if you get sick.
- Wash the potentially exposed area thoroughly.
- Seek medical attention and have a blood test done.
Summary

- Always know what hazards you are working with.
- Know and follow the written exposure control plan.
- Complete all training.
- Always follow universal precautions.
- Use proper PPE.
- Report all suspected exposures immediately.
- Do not handle sharps or broken glass with your hands.
- Never fill a sharps containers more than two-thirds full.
- Read labels on the handling of decontaminants prior to use.
- Properly dispose of contaminated waste, PPE, and sharps containers as regulated waste.
Finish

Quiz

- Please take the short quiz available at the hyperlink below to indicate you have viewed the materials.

https://docs.google.com/forms/d/e/1FAIpQLSfYII2toEVUUxGwqa_mkzycuLvQbeJQxqQEZJjbLwmFOzyqqQ/viewform