Bloodborne Pathogens Training

Effective: October 2014
Regulatory Requirements

Occupational Health and Safety (OSHA) requires both MSHA and its team members to follow the bloodborne pathogens standard 29 CFR 1910.1030 in order to prevent the spread of bloodborne pathogens.

These standards can be found at www.osha.gov under the bloodborne pathogens section.

OSHA requires MSHA to provide bloodborne pathogen training. Bloodborne pathogen training will be provided at the time of initial assignment, and is required annually by MSHA within 360 days.

Training will also be provided as new tasks or procedures are added that could affect team member occupational exposure and after a bloodborne pathogen exposure.

OSHA also requires each facility to have written a Exposure Control Plan.
Explanation of the MSHA Exposure Control Plan and the means by which the team member can obtain a copy of the written plan

The Exposure Control Plan is a written plan that includes ways that MSHA addresses minimizing bloodborne pathogen exposures and making a safer work environment.

This plan includes team member exposure determinations which are listings of all job positions that could potentially have exposure to bloodborne pathogens.

It also includes procedures for protecting workers such as standard precautions, vaccinations, personal protective equipment usage, hazard communication and workplace practices.

The procedure for reporting a bloodborne pathogen exposure, the medical follow up and evaluation are also described in this document.

The Exposure Control Plan is accessible via the MSHA Intranet under the Policy and Procedure Manager (click on Anonymous Login to access) and/or under Departments/OSHA.
Modes of Transmission

Explanation of the modes of transmission of bloodborne pathogens

Exposures may occur through needle sticks or cuts from other sharp instruments contaminated with an infected patient's blood (sharps injuries).

These injuries can be prevented by using safer techniques when handling sharps, using medical devices with safety features designed to prevent injuries and by disposing used needles appropriately and promptly.

Exposure may also occur through the eyes, nose, mouth, or non-intact skin when coming into contact with a patient’s blood or other potentially infectious materials (splash hazards).

These injuries may be prevented by using the appropriate personal protective equipment when contact with blood or other potentially infectious material is anticipated.
Epidemiology and Symptoms

General explanation of the epidemiology and symptoms of bloodborne pathogens

Bloodborne pathogens (BBP) are disease causing organisms which may be present in blood or other potentially infectious material (OPIM) and are capable of causing disease.

OPIM can include body fluids and unfixed tissue.

The three most common BBP are Hepatitis B, Hepatitis C, and HIV.
Hepatitis B

Cause
Hepatitis B is caused by the Hepatitis B virus (HBV) which attacks the liver. HBV can cause lifelong infection, cirrhosis (scarring) of the liver, liver cancer, liver failure, and death. People of all ages can get hepatitis.

Spread
HBV is spread when blood from an infected person enters the body of a person who is not infected. HBV is most commonly spread by sexual contact, IV drug use, and mother to baby.

Not spread
HBV is not spread through food or water, sharing eating utensils, hugging, kissing, coughing, or sneezing.
Symptoms, Testing, Vaccination

Hepatitis B

Symptoms
Enlarged liver, Jaundice (yellow tinge to the skin and whites of the eyes), Loss of appetite, Nausea. Abdominal pain, and Occasionally chronic HBV infection may be asymptomatic.

Testing
Diagnostic testing for HBV is available. However, the average time it takes to detect an immune response is around 4 weeks from time of exposure.

Vaccination
Hepatitis B infection is a serious risk for health care workers. However, it can be greatly decreased by receiving the Hepatitis B vaccination.
Hepatitis C

Cause
Hepatitis C is caused by the Hepatitis C virus (HCV). HCV infection sometimes results in an acute illness, but most often becomes a chronic condition that can lead to cirrhosis of the liver and liver cancer.

Spread
HCV is spread by contact with the blood of an infected person. The most common way that HCV is spread is primarily through sharing contaminated needles to inject drugs.

Not Spread
HCV is not spread through food or water, sharing eating utensils, breastfeeding, hugging, kissing, coughing, or sneezing.
Symptoms, Testing, Vaccination

Hepatitis C

Symptoms
Enlarged liver, Jaundice (yellow tinge to the skin and whites of the eyes), Loss of appetite, Nausea, Abdominal pain, Occasionally chronic HCV infection may be asymptomatic.

Testing
Diagnostic testing for HCV is available. However, results will not be available immediately after time of exposure as it takes time for the body to produce an immune response.

Vaccination
There is no vaccine for Hepatitis C.
HIV/AIDS

Cause
Human immunodeficiency virus (HIV) attacks the immune system. HIV attacks white blood cells and over time decreases a person’s ability to produce an immune response. This virus most often leads to AIDS. There is no cure for AIDS, but one can receive treatment for the symptoms.

Spread
HIV is spread through having contact with the blood or OPIM of a person who already has the virus in his or her body. The most common ways that HIV is spread is through sexual contact, intravenous drug use, and mother to baby.

Not Spread
HIV is not spread through casual contact with inanimate objects such as phones or toilet seats. It is also not spread through mosquito bites, shaking hands or eating food prepared by someone infected with HIV.
Symptoms
The only way to know whether you are infected is to be tested for HIV. You cannot rely on symptoms alone because many people who are infected with HIV do not have symptoms for many years.

Testing
A person can be tested for HIV. These tests were designed to determine whether or not the person has developed an immune response to HIV. The average time it takes to detect an immune response is 20 days. Most people will have shown a response in 3 months from time of exposure. Rare cases have taken 6-12 months.

Vaccination
There is no vaccination for HIV.
Hepatitis B Vaccine

Information on the Hepatitis B vaccine

Efficacy

The best way to prevent Hepatitis B is by getting the Hepatitis B vaccine. The Hepatitis B vaccine is very effective at preventing a Hepatitis B virus infection.

After receiving all three doses, the Hepatitis B vaccine provides greater than 90% protection for adults immunized before being exposed to the virus.
HEP-B Vaccine Safety

Safety
The Hepatitis B vaccine is safe and effective when given in a series of 3 shots over a 6-month period.

You can not contract Hepatitis B from the vaccination.

As with any medicine, there are very small risks that a serious problem could occur after getting the vaccine.

Soreness at the injection site is the most common side effect reported.

A fever may also be present after vaccination.

More serious and less common side effects include difficulty breathing, wheezing, hives, weakness, a fast heart beat or dizziness.
Information on the Hepatitis B vaccine

Method of administration
The Hepatitis B vaccine series is a sequence of three shots that stimulates a person’s natural immune system to protect against the Hepatitis B virus. These vaccinations are administered intramuscularly.

Benefits of being vaccinated
After the vaccine is given, the body makes antibodies that protect a person against the virus. These antibodies are then stored in the body and will fight off the infection if a person is exposed to the Hepatitis B virus in the future.

The Hepatitis B vaccine is not recommended for people who have had serious allergic reactions to a prior dose of Hepatitis B vaccine or to any part of the vaccine. Also, it is not recommended for anyone who is allergic to yeast because it is used when making the vaccine.
Getting the HEP-B Vaccine

The Hepatitis B vaccine is offered free of charge to all Mountain States Health Alliance team members that work in exposure prone areas.

Contact your facility’s Team Member Health office concerning this vaccine. Contact Information for Team Member Health
Recognizing Exposure Risks

Explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and OPIM (other potentially infectious material)

Standard/Universal Precautions apply to all patients regardless of suspected or confirmed infection status. Standard/Universal Precautions are based on the principle that all blood, body fluids, secretions, excretions, except sweat, non-intact skin, and mucous membranes may contain transmissible infectious agents. Personal protective equipment should be utilized based on anticipated exposure to afore mentioned substances.

For example, routine venipuncture may only require gloves whereas intubation could require gloves, gown and face shield or mask and goggles in order to protect mucous membranes from being exposed to bloodborne pathogens.
Preventing or Reducing Exposure

Explanation of the use and limitations of methods that will prevent or reduce exposure

There are three methods that MSHA uses to minimize the spread of infectious diseases.

These methods are engineering controls, work practices, and personal protective equipment.
Engineering controls are controls that are used to isolate or remove bloodborne pathogen hazards from the workplace.

These controls include, but are not limited to, sharps disposal containers, safer medical devices, sharps with engineered sharps injury protections (self-sheathing needles), and needleless systems.
Work practice controls are controls that also reduce the likelihood of exposure by altering the manner in which a task is performed.

These controls include, but are not limited to, hand hygiene, standard precautions, not eating or drinking in patient care areas, and prohibition of recapping needles by a two-handed technique.
Personal Protective Equipment

Personal protective equipment (PPE) is specialized clothing or equipment worn by a team member for protection against a hazard/exposure.

PPE can be disposable (e.g., plastic gowns, masks, rubber gloves) or reusable (e.g., goggles, N95 mask, plastic face shield)

Uniforms are not considered personal protective equipment.

Hand Hygiene should be performed before using PPE and after removing PPE.
Types of PPE

**Gloves**
Use gloves anytime you anticipate contact with blood or other body fluids. Gloves should also be used when treating wounds, drawing blood, or handling dirty linen.

**Gowns**
Use a gown when your clothing could potentially be soiled with blood or other body fluids.

**Masks**
Should be used anytime there is a possibility of being splashed in the mouth or nose. Mask should fully cover nose and mouth and prevent fluid penetration.

**Goggles/face shields**
Should be used anytime there is a possibility of being splashed in the eyes or mucous membranes. Goggles should fit snugly over and around eyes. Face shields should cover forehead, extend below chin and wrap around side of face.
Selection of PPE should be based on:

Type of exposure anticipated such as spray or splash versus contact exposure

Durability and proper fit

Based on category of isolation precautions
Location and Proper Use of PPE

Location of PPE

PPE should be located in all clean holds for team member use.

Proper use of PPE

Don before contact with the patient and/or environment (usually before entering room).

Sequence for Donning PPE per CDC recommendations:

1. Perform Hand Hygiene, then Gown first
2. Mask or respirator
3. Goggles or face shield
4. Gloves last

Click here for the training poster
Removal of PPE

Sequence for removing PPE per CDC recommendations

1. Gloves first
2. Face shield/goggles
3. Gown
4. Mask or respirator last, followed by Hand Hygiene

All PPE should be removed inside the room at the door and disposed of in the receptacles provided.

The only exception to this rule would be the removal of an N95 respirator for airborne precautions which are to be removed outside the room once the door has been closed.

Click here for the training poster.
Handling of PPE
Contaminated PPE should be handled in a manner to prevent the spread of infectious agents.

Decontamination of PPE
Most PPE at MSHA is disposable and should be discarded after each use. However, PPE that is reusable (i.e. goggles) should be thoroughly cleaned with an approved hospital disinfectant after each use.

Disposal of PPE
Contaminated PPE should be discarded in trash receptacles located in each patients area after each use. Hand hygiene should be performed immediately after disposing of PPE.
Emergency Information and Actions

All Mountain States Health Alliance team members who are involved in an incident involving exposure to blood or other potentially infectious material contact with mouth, eye, mucous membrane or non intact skin are to report such incidents promptly. Refer to the Exposure to Body Fluids Flow-Chart located in Tools and Resources on the MSHA intranet.

Obtain first aid treatment as necessary.

Notify the supervisor on duty.

Initiate the process for testing the source (patient).

Complete First Report of Injury form on HR Payroll Service Center site.

Report to Team Member Health.

Exposed health care workers will have a baseline evaluation at this time.
Exposure Incident Procedure

If an exposure incident occurs:

Method of reporting the incident
The team member reports the exposure of blood or body fluids immediately to his/her supervisor and Team Member Health.

When the Team Member Health office is closed, report any exposures to the House Supervisor and Emergency Department if treatment is needed or if the source is known to be HIV positive.

The team member is to report to the Team Member Health Office the next day Team Member Health is open.

The “Employee Injury Report Form” must be completed online under HR & Payroll Service Center.
Medical follow up

If an exposure incident occurs:

**Medical follow up will be made available**
Treatment and/or prophylaxis will be determined by the hospital Epidemiologist or designated Physician on all exposures on a case by case basis.

**Post-exposure Evaluation**
The team member will be advised about any medical conditions resulting from the exposure to blood or other potentially infectious material which would require further evaluation and/or treatment within **15 working days of the exposure**.
Color Coding - Red

Explanations of signs and labels and/or color coding used with MSHA

Regulated medical waste (other than sharps) will be placed in red bags for sterilization and disposal.

All containers of regulated medical waste, refrigerators, and/or freezers containing blood or OPIM, as well as containers used to store, transport or ship blood or OPIM will have a biohazard symbol affixed.

Biohazard symbols will be used to identify all storage rooms used to store biohazards.

Labels will consist of the international biohazard symbol identified by the red-orange color with lettering and symbols in contrasting color.

Red bags or red containers may be substituted for labels as they are understood to be for regulated medical waste only within each MSHA facility.
Color Coding - Yellow

Explanation of signs and labels and/or color coding used with MSHA

Some facilities use yellow linen bags for soiled linens.

All soiled linens shall be placed in yellow bags for storage and transport to the laundry.

Yellow bags need not be labeled as they are understood to be for soiled linen only.
Hospital facilities are using blue linen bags for soiled linens.

All soiled linens shall be placed in blue bags for storage and transport to the laundry.

Blue bags need not be labeled as they are understood to be for soiled linen only.
Questions and Answers

Interactive Questions and Answers

All MSHA Team Members will receive training on bloodborne pathogens which include the following topics (listed on the Training Summary page). This training is conducted via the computer based learning system.

Should Team Members have questions during this training, they may call Medical Call Center (NurseLink) at 1-800-888-5551 to speak to a trained, licensed healthcare professional familiar with bloodborne pathogens.

This training material has been approved by the departments of Infection Prevention, Team Member Health and OSHA Compliance at MSHA.
Training Summary

Accessible copy of the regulatory text and explanation of its contents.
Explanation of the MSHA Exposure Control Plan and the means by which the team member can obtain a copy of the written plan.

Explanation of the modes of transmission of bloodborne pathogens.

General explanation of the epidemiology and symptoms of bloodborne pathogens.

Hepatitis B
Hepatitis C
HIV/AIDS

Explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and OPIM (other potentially infectious material).
Explanation of the use and limitations of methods that will prevent or reduce exposure.

Engineering control

Work practices

- Personal protective equipment
- Types of PPE
- Selection of PPE
- Proper use of PPE
- Location of PPE

- Removal of PPE
- Handling of PPE
- Decontamination of PPE
- Disposal of PPE
- Information on the Hepatitis B vaccine
- Efficacy
- Safety
- Method of administration
- Benefits of being vaccinated
- Offered free of charge to MSHA team members in exposure prone areas
- Information on the appropriate actions to take and persons to contact in an emergency involving blood or OPIM (other potentially infectious material)
- Explanation of the procedure to follow if an exposure incident occurs
- Opportunity for interactive questions and answers
Almost finished....

Please close this window and return to TEDS to complete the test for this course.