

Bloodborne Pathogens

TRAINING GUIDE



VMCLI
Veterinary Medical Center of Long Island
24 Hour Emergency & Specialty Services

Table Of Contents

Overview	1
Types of Bloodborne Pathogens	2
Vaccinations	3
Exposure Control Plan	4
Prevention	4
Decontamination	7
Post-Exposure	8
Employee Acknowledgment Form	9

© 2014 by the American Society for Blood-Borne Pathogens, Inc. All rights reserved. This document is the property of the American Society for Blood-Borne Pathogens, Inc. and is not to be distributed, copied, or reproduced in any form without the written permission of the American Society for Blood-Borne Pathogens, Inc. For more information, please contact the American Society for Blood-Borne Pathogens, Inc. at 1-800-541-8911 or www.asbbs.org.

Overview

Many people think they are not affected by bloodborne pathogens; however, workers in many professions such as physicians, nurses, emergency responders, first aid providers, and laundry and maintenance workers have a high risk for exposure. Even more occupations out there - such as lab technicians and assembly workers - also can be exposed to bloodborne pathogens, depending on the work environment.

The Occupational Safety and Health Administration (OSHA) adopted a regulation, 29 CFR part 1910.1030, to better help protect you and prevent bloodborne pathogens incidents in the workplace. This regulation requires training in areas this handbook will cover. You will learn about:

- The most common types of infectious diseases;
- Exposure control plans;
- Prevention procedures;
- Work practices;
- Vaccinations; and
- Procedures to follow when exposed to bloodborne pathogens.

You are encouraged to take advantage of the safety measures and work practices you will learn in this training. Your knowledge about bloodborne pathogens can make the difference between your sickness and good health.

Types of Bloodborne Pathogens

Bloodborne pathogens are agents, such as bacteria, viruses or fungi, found in the blood or other bodily fluids of infected individuals. The most common diseases caused by exposure to bloodborne pathogens include: hepatitis B virus (HBV), hepatitis C virus (HCV) and human immunodeficiency virus (HIV).

People who carry bloodborne pathogens may not be aware that

they are infected with a disease. Therefore, you should use extreme caution to ensure you do not come into direct contact with blood or other potentially infectious materials while performing work-related duties.



Exposure to Bloodborne Pathogens

Bloodborne pathogens are a serious issue. Therefore, it is important to understand how you can potentially contract diseases associated with bloodborne pathogens. Diseases such as HBV, HCV or HIV can be transmitted to you through the eyes, skin, nose or mouth, also known as mucous membranes, or under the skin by puncture. Exposure can result from cuts or puncture wounds caused by sharp objects, such as blades, needles or knives. There is also risk of exposure when blood or bodily fluid is splashed on open cuts or mucous membranes.

This can be prevented, however, if you follow certain safety measures to avoid contact with bloodborne pathogens - particularly when doing the following high-risk tasks:

- Cleaning up spills of blood;
- Sticking yourself or someone else with a needle;
- Handling knives or cutters;
- Drawing blood for laboratory tests;
- Applying pressure to control bleeding;
- Cleaning up soiled equipment;
- Treating a laceration; or
- Handling contaminated laundry.

The need for safety cannot be stressed enough when bloodborne pathogens are concerned. And if you are a healthcare worker, always remember that your safety and health are just as important as the health of those you care for.

Hepatitis B Virus (HBV)

HBV is a severe liver infection that is most efficiently transmitted through infected blood or bodily fluids. The Centers for Disease Control estimates that 280,000 people are infected with HBV each year in the United States. The virus may exist in the body for up to six months before symptoms appear. HBV is a potentially life-threatening disease, and your potential for exposure should be taken very seriously.

Medications are available to treat a long-lasting (chronic) HBV infection. These work to minimize symptoms and adverse effects, but there is no actual cure for HBV. That is why prevention is so important. Employees with a high risk of exposure to HBV should protect themselves by getting a hepatitis B vaccination. (See *Vaccinations* below for more information.)

Hepatitis C Virus (HCV)

HCV is another disease that can be transmitted through exposure to infected blood or bodily fluids. Individuals who contract HCV are at risk of developing cirrhosis of the liver or liver cancer. The difference between HBV and HCV is that many people who are infected with HCV are not aware of their infection because they are not clinically ill.

The infection associated with HCV develops slowly. In fact, it may be two or more decades before symptoms show up in your system. Unfortunately, there are no effective treatments or vaccines available to combat HCV; however, blood tests now can help detect early signs of HCV infection in the bloodstream.

Human Immunodeficiency Virus (HIV)

HIV is the virus that causes Acquired Immunodeficiency Syndrome (AIDS). It is estimated that nearly

2 million Americans are infected with HIV. It attacks the white blood cells and eliminates the body's ability to fight infections. Individuals who contract HIV may not feel or look sick. Like other bloodborne pathogens, HIV can be passed from one individual to another through blood or other bodily fluids. The HIV antibody can be detected in a blood test approximately six months after exposure.

AIDS is a serious, life-threatening disease, and there is no cure or vaccination for HIV.

Vaccinations

A vaccination is a medical procedure that helps your body fight a particular disease. When you receive one, antibodies gradually begin to develop in your body, so your risk of being infected with a disease is lowered. A vaccination is not a cure, but it is a defense system that will help make your system stronger in case you're exposed to a disease.

There is a safe and effective vaccination available for HBV. It protects those at risk and contributes to the elimination of the disease. If you are at risk of being exposed to bloodborne pathogens, the vaccination should be offered after your bloodborne pathogens training and within 10 working days of your first assignment. The vaccination is normally offered in three doses in a six-month period. Usually, the first two doses are given one month apart, and the third dose five months later. It is important that you receive all three doses for maximum protection.

If you decide not to receive the HBV vaccination, your employer will ask you to complete a declination form, indicating your refusal to have the vaccination administered. If you choose not to receive the vaccination when offered, you can always change your mind and receive it later.

Exposure Control Plan

OSHA requires employers to develop a written exposure control plan for employees who are at risk of being exposed to blood and other potentially infectious material. The goal of the exposure control plan is to eliminate or minimize employees' exposure to blood or other potentially infectious materials. The exposure control plan is a reference guide that specifies the methods of protecting and training employees when bloodborne pathogens are an issue. The plan should include:

- A list of jobs in which employees have exposure to bloodborne pathogens regularly or periodically;
- A detailed description of the work practices and policies regarding topics such as hand washing, handling sharp objects, disposal of infectious waste, and protective equipment such as face shields and gloves;
- Instructions for housekeeping and maintenance; and
- Procedures for responding to an incident if an employee is exposed to bloodborne pathogens on the job.

The plan should be reviewed and updated annually, or whenever new tasks and procedures affect employees' exposure to blood or other potentially infectious materials. The exposure control plan is critical, and should provide a useful reference if you have any questions about how to deal with bloodborne pathogens.

Prevention

You can reduce the likelihood of exposure to bloodborne pathogens by following a method known as "universal precautions." This requires you to assume that all blood or other bodily fluids are infected with a disease - because you cannot tell by observation whether blood or bodily fluid is infected. You should exercise extreme caution when handling blood or bodily fluids. Before you perform any on-the-job task requiring contact with blood or bodily fluids, make sure you are protected with the proper equipment.

Personal Protective Equipment

Personal protective equipment (PPE) includes items such as gloves, goggles, face shields, gowns and shoe covers, and acts as your first line of defense against exposure to harmful blood or bodily fluids. Using protective equipment may seem time-consuming; however, this step should never be skipped or compromised. Your supervisor **will** provide all of the equipment needed to perform your job safely. If additional assistance is needed, be sure to notify your supervisor immediately. Here are some additional guidelines to help you use PPE properly:

- Wear PPE when handling potentially infectious materials;
- Immediately, or as soon as possible, remove garments that become penetrated by blood or other potentially infectious material to avoid exposure;
- Replace all garments that are torn or punctured;
- After using PPE, clean and disinfect the equipment if it is reusable;
- Remove all PPE before leaving the work area; and
- Place all garments in the designated area or storage bin for cleaning, decontamination or disposal.

Gloves

Gloves are commonly used to prevent exposure to bloodborne pathogens. The key to prevention, however, is how you use them. Always be sure to put your gloves on before you come into contact with blood or bodily fluids, and carefully inspect them each time you put them on to make sure they do not have any holes or tears. A good fit is also important, because you do not want them to fall off or tear during a procedure. Also, the proper removal of gloves is critical in preventing your exposure to bloodborne pathogens. Be sure to follow these guidelines when removing your gloves:

- Peel off one glove and hold it in the gloved hand;
- With an uncovered finger, peel off the remaining glove from the inside;
- Dispose of the gloves promptly; and
- Wash your hands using the proper hand-washing procedures (discussed on page 9 of this handbook).



Eye and Face Protection

Always wear a mask, goggles, glasses or face shield when performing a task when there is a possibility for blood or other potentially infectious materials to be splashed, sprayed or spattered on you. Your supervisor will help you determine what eye/face protection you need for your job. If you are wearing reusable gloves, remember to clean them before removing your mask, goggles or eyepiece, to prevent contamination.

Hand Washing

Proper hand washing is one of the most important measures you can take to prevent the spread of infection. Hands can act as a primary source in the transmission of disease-causing organisms. Therefore, whenever you come in contact with blood or other bodily fluids that may contaminate your hands, be sure to follow thorough hand-washing techniques. Each time you wash your hands, you should:

- Remove any rings or jewelry;
- Use warm to hot water and wet your hands thoroughly;
- Use soap to create a thick lather;
- Scrub your hands between your fingers, wrists and forearms, and under your nails;
- Continue scrubbing for at least 20 seconds;
- Rinse thoroughly under running water;
- If possible, turn off the faucet with a paper towel;
- Dry your hands with a single-use towel or hot-air dryer;
- Use a paper towel to cover the door handle when leaving the room; and

It is best to wash your hands frequently, even if you are not aware of any contact with contaminated materials. If soap and running water are not available, check with your company to find out where antiseptic (germ-killing) hand cleanser, clean cloths and paper towels are stored. If you are exposed to blood or bodily fluids on other skin or mucous membranes, flush those areas with water as soon as possible.



Avoiding Injuries Caused by Sharps

Working with sharp instruments, otherwise known as "sharps," can put you at risk of exposure to bloodborne pathogens. A contaminated box cutter, piece of broken glass, or even an infected needle can potentially puncture or cut your skin, so it is extremely important to take appropriate safety precautions when working around these objects. Here are some tips to handling sharps safely:

- Make sure you identify where your sharps containers are in your work area;
- The container should be puncture-resistant and leakproof, and labeled with the appropriate biohazard sign;
- All sharps should be disposed of in a sharps container, not in a common trash basket;
- Do not open or place your hands into a sharps container;
- Do not handle sharp objects such as broken glass with bare hands - use tools such as forceps, pliers, brooms and dustpans to move or pick up sharps;
- Don't recap, remove, bend or shear needles; and
- Replace used sharps containers often to ensure there is always ample space for disposal.



No Eating, Smoking or Drinking

Avoid eating, drinking or smoking in a work area where you may be potentially exposed to bloodborne pathogens. You also should avoid applying makeup or handling contact lenses in these work areas to decrease the likelihood of exposure.

Do not store food or drinks in refrigerators, on shelves, in cabinets, or on countertops where potentially infectious materials are kept. Never store food or drinks near containers labeled with a biohazard sign.

Disposing of Biohazardous Materials

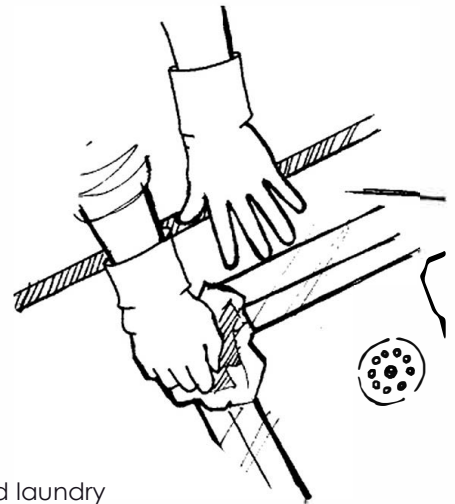
There are different options you can use to dispose of biohazardous materials, so be sure to first contact your supervisor or refer to your exposure control plan to find out your company's procedures. One general rule for disposal is that all biohazardous materials must be placed in containers that prevent leakage. The containers should be identified by a fluorescent orange or orange/red biohazard label, or may be substituted with red bags or red containers with lettering and symbols to indicate the presence of blood or other potentially infectious materials. The person designated by your employer to dispose of biohazardous materials should seal the container to prevent leakage.

If a container leaks, just place it inside a second container that is leakproof, and attach the proper labels to indicate the presence of a biohazardous material. Only a designated person who is trained and knowledgeable regarding state and federal laws on handling regulated hazardous materials should be permitted to remove containers from the workplace.

Housekeeping

Similar to housekeeping rules for the home, the workplace also should be kept clean and sanitary to promote good health. Your employer will establish a written schedule for cleaning and decontamination methods to be used. The methods will include information such as:

- The affected location within your facility;
- The surface to be cleaned;
- The infectious materials present; and
- The procedures normally performed in that area.



Handling Laundry

Proper handling of contaminated laundry also can reduce your chances of being exposed to bloodborne pathogens. Contaminated laundry should be put into bags at the location where it is used. The bag should be labeled as biohazardous and shipped to the laundry facility in leak-proof containers. Never take contaminated laundry home. Also, always wear gloves when handling contaminated laundry.

Decontamination

If equipment or a work area becomes contaminated with blood or bodily fluids, it needs to be cleaned up immediately. Here are a few basic procedures you can follow when decontaminating an area:

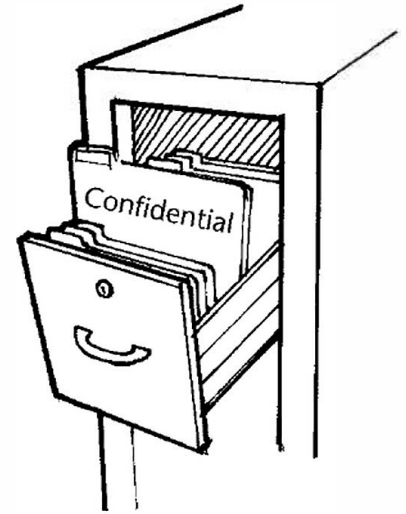
- Section off the area with a barrier, such as tape, and isolate the contaminated area;
- Wear gloves to protect your hands from irritation and exposure to bloodborne pathogens;
- Spread an absorbent over any blood or other potentially infectious materials;
- Use a broom and dustpan to pick up any sharps;
- Use bleach or a disinfectant to clean the area;
- Decontaminate all work areas or equipment as soon as possible; and
- Allow the area to dry before removing the barrier.

Post-Exposure

If you are exposed to blood or other body fluids, report the incident to your supervisor immediately. Your employer will give you a confidential medical evaluation and follow-up. It is important that you provide as much information as possible because it will help the healthcare professional assess your situation and provide the necessary care. You may be asked to provide details about how you were exposed, the instrument used, and other circumstances about the incident.

Once this information is gathered, your employer will make the hepatitis B vaccination available to you, if needed, at no charge. Even if you had decided not to accept the vaccination as a precautionary measure before the incident, you still will have the opportunity to receive the vaccination once you have had an incident exposing you to the disease. After you have met with the healthcare professional, you will be informed of the results of the evaluation and told of any medical conditions resulting from exposure.

All other findings or diagnoses will remain confidential, and will not be included in the written report provided to your employer.



Employee Acknowledgment

This is to acknowledge that I have received the handbook regarding bloodborne pathogens safety. I will familiarize myself with its contents and direct any questions to my supervisor. I also will report all accidents, injuries, potential safety hazards, safety suggestions and health- and safety-related issues to my supervisor immediately. I understand that this handbook provides the high points of the information I will need to know as outlined by the Occupational Safety and Health Administration (29 CFR Part 1910.1030). My signature certifies that I have been through bloodborne pathogens training and taken the examination at the end of the course.

_____	____/____/____
Employee's Signature	Date

Company	

Course Instructor's Signature	

NOTE: You are required to read this handbook, sign the acknowledgment, and return the acknowledgment to your supervisor or course instructor as soon as possible. Keep the handbook for your own reference.