Training Solutions, Delivered!

BLOODBORNE PATHOGENS IN FIRST RESPONSE ENVIRONMENTS

Leader's Guide, Fact Sheet & Quiz

Item Number: 3537

This easy-to-use Leader's Guide is provided to assist in conducting a successful presentation.

PREPARING FOR THE MEETING

Here are a few suggestions for using this program:

a) Review the contents of the Fact Sheet that immediately follows this page to familiarize yourself with the program topic and the training points discussed in the program. The Fact Sheet also includes a list of Program Objectives that details the information that participants should learn from watching the program.

b) If required by your organization, make an attendance record to be signed by each participant to document the training to be conducted.

c) Prepare the area and equipment to be used for the training. Make sure the watching environment is comfortable and free from outside distractions. Also, ensure that participants can see and hear the TV screen or computer monitor without obstructions.

d) Make copies of the Review Quiz included at the end of this Leader's Guide to be completed by participants at the conclusion of the presentation. Be aware that the page containing the answers to the quiz comes *before* the quiz itself, which is on the final page.

CONDUCTING THE PRESENTATION

a) Begin the meeting by welcoming the participants. Introduce yourself and give each person an opportunity to become acquainted if there are new people joining the training session.

b) Introduce the program by its title and explain to participants what they are expected to learn as stated in the Program Objectives of the Fact Sheet.

c) Play the program without interruption. Upon completion, lead discussions about your organization's specific policies regarding the subject matter. Make sure to note any unique hazards associated with the program's topic that participants may encounter while performing their job duties at your facility.

d) Hand out copies of the review quiz to all of the participants and make sure each one completes it before concluding the training session.

3537 BLOODBORNE PATHOGENS IN FIRST RESPONSE ENVIRONMENTS
FACT SHEET

LENGTH: 26 MINUTES

PROGRAM SYNOPSIS:
Employees in first response organizations constantly encounter potentially hazardous situations where they could be exposed to blood and other human body substances, as well as materials and equipment that may have been contaminated with bloodborne pathogens. The Occupational Safety and Health Administration (OSHA) has created regulations that require first responder groups to establish policies and procedures for reducing the risk of exposure to bloodborne pathogens and dealing with accidental exposures when they occur. To help prevent transmission of bloodborne pathogens in the workplace, first responders need to understand the hazards of these organisms as well as the requirements of OSHA's Bloodborne Pathogens Standard. They also need to know what safe practices and protective equipment to use to work more safely around infectious materials. This program is designed to present information on the nature of bloodborne diseases and to help employees reduce or eliminate potential exposure to bloodborne pathogens in their work environments.

PROGRAM OBJECTIVES:
Upon completion of the program, viewers should:
- Understand the health hazards presented by bloodborne pathogens, including the Human Immunodeficiency Virus (HIV), Hepatitis B and Hepatitis C.
- Have an overall understanding of OSHA's Bloodborne Pathogens Standard.
- Know how they could be exposed to bloodborne pathogens in first response operations.
- Understand the purpose of an Exposure Control Plan.
- Understand the policies and procedures that a first responder group's Exposure Control Plan will include that will help to prevent transmission of bloodborne pathogens.
- Know specific safe work practices and protective equipment that they should use to avoid exposure to infectious materials in their jobs.
- Know what they should do if they are exposed to a bloodborne pathogen.
- Understand the responsibilities a first response employer has to an employee who has been exposed to bloodborne pathogens.
- Understand what will be done to evaluate and address any health effects that an exposure to a bloodborne pathogen may cause.

PROGRAM OUTLINE:

HIV, HEPATITIS AND SOURCES OF INFECTION

- **They're too small to see with the naked eye, but they pose health risks that are too big to ignore.**

—Bloodborne pathogens are the disease-causing microorganisms found in human blood, as well as human blood components and products.

- **Exposure to bloodborne diseases is a serious concern in first response environments.**

—As a result OSHA (the Occupational Safety & Health Administration) has developed regulations for dealing with bloodborne pathogens in the workplace.

- **While there are a number of bloodborne pathogens, the Human Immunodeficiency Virus ("HIV"), Hepatitis B and Hepatitis C currently pose the greatest threats.**
- **This program will show:**

—How exposure to bloodborne pathogens can occur in first response environments.
—How regulations and required procedures help to prevent such exposure.
—What to do if exposure to a bloodborne pathogen occurs.

- **The dangers associated with the HIV pathogen have received a great deal of public attention.**

—It is reported to have infected more than one million people in the U.S. alone, and it continues to spread.

- **Symptoms experienced at the onset of HIV infection can vary. They include:**

—Weakness.
—Fever.
—Nausea.
—Headaches.
—Diarrhea.
—Other "flu-like" symptoms.

- **Many people who have the HIV virus show no apparent symptoms for years after their initial infection.**
- **There is still no proven vaccine that can prevent HIV, and no known cure.**

—However, great strides have recently been made in treating HIV, and there are several drugs and drug combinations that appear to be effective in controlling the disease and relieving its symptoms in many people.

- **People who contract HIV risk developing the Acquired Immunodeficiency Syndrome ("AIDS") which attacks the immune system.**

—This reduces the body's ability to fight off other diseases, and as a result can ultimately be fatal.
Controlling the spread of the HIV pathogen is very important.

- **Hepatitis is a liver disease that usually results in an inflammation of the liver and frequently progresses to more serious conditions, including cirrhosis and cancer.**

—Each year in the U.S., there are more than 40,000 new cases of Hepatitis B, the most common type of viral hepatitis.
—It is estimated that more than 3 million people in the U.S. are carrying the Hepatitis C virus.

- **In fact, the prevalence of hepatitis is so widespread that many experts consider it to be a greater transmission hazard than HIV.**
- **While there is no known cure for Hepatitis B, a vaccine is available that can prevent infection.**

—In some cases, the vaccine can be effective in preventing infection <u>after</u> exposure.
—There are also treatments that can help to control Hepatitis B and relieve its symptoms.

- **In recent years there has been even more progress made in the treatment of Hepatitis C.**

—Today, there are drugs that can actually cure Hepatitis C in many people.

- **Hepatitis B symptoms can take six weeks to six months to develop, symptoms of Hepatitis C from four weeks to three months.**

—The initial indications resemble those of a mild "flu".
—There is a sense of fatigue, nausea, loss of appetite, and possible stomach pain.
—Often, jaundice (a distinct yellowing of the skin) will eventually develop, as well as a darkening of the urine.

- **In first responder environments, bloodborne pathogens are most often transmitted "parenterally".**

—This is when microorganisms that are present in a substance are accidently "injected" into a worker by a contaminated sharp object.
—These exposures most often occur through punctures from infected needles, or human bites.
—They are so common that preventing "parenteral" exposures is one of the major focuses of the OSHA Bloodborne Pathogens Standard.

- **Other ways that bloodborne pathogens are transmitted include skin abrasions or cuts that come into contact with potentially infectious materials such as:**

—Blood.
—Human tissue.
—Vaginal secretions from discarded hygiene products.
—Other body substances with blood in them.

THE EXPOSURE CONTROL PLAN

- **OSHA's Bloodborne Pathogens Standard requires several things of your group.**

—The first step involves the creation of an "Exposure Control Plan".

- **This plan spells out how your group will address the requirements of the regulation itself, and includes:**

—A determination of each employee's potential for exposure to bloodborne pathogens.
—An examination of ways to limit or eliminate these exposures.

- **The Exposure Control Plan also discusses setting up a Hepatitis B vaccination program, as well as procedures to be followed whenever an accidental exposure occurs.**

- **Other parts of the plan address:**

—Biohazard warning signs and labels.
—Employee training.
—Keeping records regarding exposure, vaccination and training.

- **The plan must also incorporate the use of "Standard Precautions", which require that all human blood and other body substances be treated as if they are known to be infectious.**
- **For people who work as first responders, one of the most critical issues the Exposure Control Plan addresses is how to reduce the risk of needle sticks and other "sharps" injuries.**

—The Centers for Disease Control and Prevention estimates that contaminated sharps cause nearly 400,000 injuries each year.
—When these injuries involve infectious agents such as Hepatitis or HIV, the affected workers are almost always at risk of contracting some type of bloodborne disease.

- **To help combat the danger of needle sticks, OSHA requires that Exposure Control Plans be re-evaluated at least once a year.**
- **A major focus of these reviews is to make sure that your group is using every means available to keep you safe, including:**

—Updated work practices.
—The latest "needle-less" technologies.

- **As a rule, the review must confirm that the Exposure Control Plan:**

—Reflects changes in technology that can eliminate or reduce exposure to bloodborne pathogens.
—Documents the investigation and implementation of new medical devices that are designed to reduce or eliminate occupational exposures to bloodborne pathogens.
—Incorporates the opinions of frontline employees whose interactions with patients expose them to potentially contaminated sharps.

- **If you would like to look at your group's Exposure Control Plan, ask your supervisor.**

BIOHAZARD LABELING

- **Labeling is the most "visible" requirement in the regulation.**

—Containers carrying any potentially infectious materials, such as blood or tissue, must be marked with a "biohazard" label.

- **Biohazard labels must also appear on any equipment and materials that are suspected of being contaminated, such as stretchers and air packs, or police evidence such as weapons and clothing.**

—The word "contaminated" indicates the presence or anticipated presence of potentially infectious materials on an item or surface.

- **Biohazard labels are fluorescent orange-red, with the biohazard symbol in a contrasting color.**

—The word "biohazard" is also marked on the lower portion of the label.
—Red bags or red containers can substitute for these labels.

- **There are several "exceptions" to these labeling requirements.**

—Individual containers of blood do not have to be labeled if they are placed inside another labeled container for transport or storage.
—Labeled blood products released for transfusion or other clinical uses are exempt, as long as these specimens remain in the group or facility.

- **Common places that you will see biohazard labels include:**

—Refrigerators and freezers containing blood or other potentially infectious materials.
—Containers used to store, transport or ship these materials.
—Contaminated equipment awaiting cleaning.
—Containers of "Regulated Waste".

- **In first response environments "Regulated Waste" typically refers to several things, including:**

—Potentially infectious materials such as blood.
—Things such as used bandages and dressings.
—Contaminated bedding and towels.

- **Contaminated sharps, including needles, scalpel blades and broken glass, are also considered "Regulated Waste".**

—So are containers that may have had infectious material in them.

REDUCING THE RISK OF EXPOSURE

- **In addition to encountering victims of accidents or violence, activities where a first responder might expect to encounter bloodborne pathogens include:**

—Handling blood products.
—Emptying trash and performing other cleaning duties.
—Changing linens on stretchers, beds or examination tables.
—Refilling first-aid kits.
—Working with soiled laundry.
—Handling contaminated equipment.
—Examining crime scenes and preserving evidence.

- **Your employer has compiled lists of job classifications and activities that may present a risk of exposure to bloodborne pathogens.**

—These lists can be found in your group's Exposure Control Plan.

- **There are many ways that you and your employer can work to reduce your potential for exposure to bloodborne pathogens. They include:**

—The use of Standard Precautions (treating all blood and body substances as if they are infectious).
—Engineering controls.
—Following "safe work practices".
—The use of personal protective equipment.
—Appropriate housekeeping practices.

- **"Engineering controls" refer to equipment or machinery that can minimize exposure, such as:**

—Puncture-resistant "sharps" containers.
—Tongs to pick up contaminated materials.
—Sharps with engineered injury protections, such as self-sheathing needles.

- **"Safe work practices" reduce the potential for exposure by focusing on the safest ways to perform tasks.**

—Handwashing is one of the most important.

- **If you have been involved in a situation where you may have been exposed to bloodborne pathogens, OSHA requires that you wash your hands immediately after removing any gloves and personal protective equipment that you were wearing.**

—When you're finished, remember to use your towel to turn off the faucet (so you won't "re-contaminate" yourself on a surface that you touched before you washed your hands).

- **You must also rinse your eyes, nose or other mucous membranes with generous amounts of water if they have been exposed to potentially infectious materials.**
- **OSHA considers "housekeeping practices" to be very important to the control of exposure situations.**

—Written cleaning schedules, specifying the methods of decontamination that are being used, must be maintained to keep all areas clean and sanitary.

- **Work surfaces that are obviously contaminated, must be cleaned immediately with an appropriate disinfectant.**

—Cleaning should also be done at the end of each work shift.

- **Broken glassware is not to be picked up by hand, but by using a brush and dustpan, tongs, or other tools.**
- **There are several "safe work practices" that must be followed regarding contaminated needles and sharps:**

—They must not be bent.
—They cannot be recapped or removed, unless there is no feasible alternative.
—If they have to be recapped or removed, you must use a one-handed technique, or a mechanical device.

- **Contaminated sharps must be discarded as soon as possible into appropriately labeled containers that are:**

—Closeable.
—Puncture-resistant.
—Leak-proof.

- **These containers must be easily accessible, left upright, replaced routinely, and never overfilled.**

—They must be closed when they are handled.
—They are subject to the same "secondary container" requirements as specimens, as well.

- **There are rules that also govern the handling of other "Regulated Waste".**

—This includes contaminated personal protective equipment, bandages, linens and other potentially infectious materials that are being disposed of.

—These must all be placed in appropriately labeled, closeable and leak-proof containers.

—Containers must be closed and secured during handling.

- **When the outside surface of a primary container is contaminated, an appropriately labeled secondary container must be used as well.**

—If there is a danger that the items contained in the waste could puncture the primary container, the secondary container must be puncture-resistant as well as leak-proof.

- **Another part of the Bloodborne Pathogens Standard concerns contaminated laundry.**

—Laundry should be handled as little as possible and always bagged appropriately.

—It must never be sorted or rinsed at its originating location.

- **Labeled or color-coded bags are required to transport laundry.**

—Bags must be leak-proof if the laundry is wet and shows a potential for "soak-through".

—All laundry must be handled with gloves and other appropriate protective equipment.

- **OSHA also addresses personal workplace activities in the Bloodborne Pathogens Standard.**

—You should never eat, drink or smoke in areas where exposure to bloodborne pathogens could occur.

—Never apply cosmetics, lip balm or contact lenses while you're in these areas, either.

—Food or drink should never be stored where blood or other potentially contaminated materials are kept.

- **The last type of "safe work practices" that the regulation addresses concerns equipment.**

—If a piece of equipment is contaminated with blood or other body substances, a "biohazard" label must be affixed immediately.

- **Once it is labeled, the equipment must be cleaned and decontaminated as soon as possible, using your facility's approved disinfectant such as diluted bleach.**

—If it cannot be totally decontaminated, the equipment must remain labeled as a "biohazard".

- **Protective coverings on equipment must be replaced if they are contaminated.**

—Before any piece of equipment is serviced or shipped, it must be inspected for contamination as well.

- **All employees or service personnel who may come into contact with the equipment must be notified of the location and type of contamination that exists there.**

PERSONAL PROTECTIVE EQUIPMENT

- **Using personal protective equipment (PPE) is another key part of the Bloodborne Pathogens Standard.**

—PPE must be worn whenever there is a chance of exposure to blood or other potentially infectious material.

—Gloves are mandatory in these situations.

- **Disposable gloves should be replaced as soon as possible after becoming contaminated.**

—You should never attempt to decontaminate and reuse them.

—They should also be replaced immediately when they are torn or otherwise damaged.

—Removing rings before putting on your gloves will help to keep them from tearing.

- **Utility gloves, usually rubber or vinyl, are heavier and can be reused once they are decontaminated.**

—However, they must be discarded if they are cracked, peeling or otherwise damaged.

—You must change gloves and wash your hands after any exposure.

- **If you are sensitive to latex, talk to your supervisor.**

—Non-latex gloves will be made available to workers with documented latex allergies.

- **Whenever there is a chance that body fluids may splash or splatter, extra precautions need to be taken.**

—At a minimum, masks and eye protection should be worn.

- **Standard safety glasses protect the eyes from direct exposure from the front.**

—"Side-shields" provide added coverage.

- **Safety goggles fit snugly and provide complete protection of the eye region.**

—Face shields protect not only your eyes, but the rest of your face as well.

- **"Pocket" and other face masks are designed to protect the mouth and lip area.**

—They should also be worn whenever eye protection is used.

- **Coats and other protective clothing can shield much of the body.**

—They should be selected based on the degree and circumstances of your anticipated exposure.
—They must effectively prevent the pass-through of fluids and other materials.

- **Your group has personal protective equipment available for you in your work area.**

—If you are unsure of the location of a particular item, ask your supervisor.

- **You also need to be aware of your group's procedures for handling PPE once it has been worn.**

—Know the location of collection and disposal points, and use them.
—Remember, you must take off your PPE before leaving your work area.

HEPATITIS VACCINATIONS

- **Following "safe work practices" and using personal protective equipment can substantially reduce your risk of exposure.**

—But your first line of defense against infection is vaccination.

- **Although there are currently no vaccines that can prevent HIV or Hepatitis C, there is a vaccine for Hepatitis B and it's been available** for some time.

—The vaccine is administered in three injections, given several months apart.
—Hepatitis B vaccines are safe.
—There is no possibility of infection through the vaccine itself.

- **Your employer has set up a free Hepatitis B vaccination program for all employees who are at risk of exposure.**

—Your supervisor can give you more information about the program.
—If you are at any risk, it's important that you be vaccinated.
—It is so important that OSHA requires you to sign a form if you decline the vaccination.

- **If you are accidentally exposed to Hepatitis B infected blood and have not been vaccinated, your employer will offer you an "accelerated vaccination series", also at no cost.**
- **Because many forms of Hepatitis B are slow to develop, vaccination may prevent the infection if given in time.**

—Early detection is extremely important.
—But "after the fact" vaccination does not always prevent the disease from developing.

POST-EXPOSURE PROCEDURES

- **As careful as we may be, needle sticks, blood leakage and spills can still occur.**

—You need to know what to do in case of such an emergency.

- **First, if you have come into contact with any potentially contaminated material, you should wash the affected area with soap and water as soon as possible.**

—If the incident involves a spill or leak, you should soak up the material, or contain it using absorbent barriers.
—Any surface that has been contaminated should be cleaned with an approved disinfecting solution.

- **As soon as the spill or leak has been dealt with, any contaminated materials should be disposed of in an approved waste disposal container.**

—Any "disposable" personal protective equipment that has been contaminated should also be discarded.
—Re-usable equipment should always be recycled for decontamination.

- **After an exposure to any bloodborne pathogen occurs, a number of people will need to be notified, including:**

—Your supervisor.
—Your organization's Infection Control Group.

- **You may also need to complete an "incident report".**
- **If the exposure was caused by a contaminated sharp, your group will record it in a special "Sharps Injury Log".**

—This log is specifically set up to keep track of "percutaneous" injuries, which penetrate the skin.

- **Every entry into the log must include the following information:**

—The type and brand of device that was involved in the incident.
—The department or work area where the accident took place.
—An explanation of what happened.

- **Immediately following the exposure, your employer will give you a written summary of:**

—The routes of exposure you experienced.
—The circumstances under which the exposure occurred.
—If possible, the identity of the individual from whom the potentially infectious material originated.

- **Your employer will also try to determine if the source individual's blood is infected with Hepatitis B, Hepatitis C or HIV.**
- **An appointment will then be arranged for you with a healthcare professional to review the medical implications of what took place.**
- **Your employer will provide the healthcare professional with information such as:**

—The type of work you were doing when the incident occurred.
—The result of the source individual's blood test.
—Any of your medical records which are relevant to possible treatment.

- **With your permission, your blood will also be tested to determine if an infection has occurred.**
- **Your situation will then be evaluated and discussed with you in detail.**

—If it is appropriate, medical treatment may be recommended.
—If Hepatitis B vaccination is called for, it will be provided by your employer at no cost.

- **The healthcare professional is also required to verify four things with your employer:**

—That you have been informed of the results of their evaluation.
—That you discussed any medical condition resulting from the exposure which would require follow-up.
—Whether you should receive Hepatitis B vaccination.
—Whether you have received the first injection in the Hepatitis B vaccination series.

- **All other information that results from your medical evaluation will remain confidential.**

BLOODBORNE PATHOGENS IN FIRST RESPONSE ENVIRONMENTS

ANSWERS TO THE REVIEW QUIZ

1. a
2. b
3. b
4. a
5. a
6. b
7. b
8. b
9. a
10. b

BLOODBORNE PATHOGENS IN FIRST RESPONSE ENVIRONMENTS
REVIEW QUIZ

The following questions are provided to determine how well you understand the information presented in this program.

Name_____Date_____

1. People who have contracted HIV are at risk of developing Acquired Immunodeficiency Syndrome ("AIDS").

a. True
b. False

2. There are currently no treatments that are effective in controlling Hepatitis B or relieving its symptoms.

a. True
b. False

3. An Exposure Control Plan does not include procedures that should be followed if an accidental exposure to bloodborne pathogens takes place.

a. True
b. False

4. "Safe work practices" reduce the potential for exposure to bloodborne pathogens by focusing on the safest ways you can perform various tasks.

a. True
b. False

5. If a piece of equipment is contaminated with blood or other body substances, a biohazard label must be affixed to it immediately.

a. True
b. False

6. Disposable gloves can be reused safely if they have been cleaned and decontaminated.

a. True
b. False

7. Vaccination can help to prevent exposure to some bloodborne pathogens.

a. True
b. False

8. While there is currently no vaccine that can prevent Hepatitis B infection, there are vaccines that can prevent infection from AIDS and Hepatitis C.

a. True
b. False

9. Any surface that has been contaminated by a potentially infectious material should be thoroughly cleaned with your group's approved disinfecting solution.

a. True
b. False

10. "Percutaneous" injuries do not penetrate the skin completely.

a. True
b. False