Exposure Control of Bloodborne Pathogens in the Workplace

Risk Control from Liberty Mutual Insurance

Highlights:

- Who needs a program?
- Written exposure control plan
- Information and training
- Recordkeeping
- Engineering and work practices controls
- Major elements of an exposure control program

Occupational exposure to bloodborne pathogens, disease-causing microorganisms carried in blood, or body fluids may occur in a variety of settings.

These pathogens include but are not limited to human immunodeficiency virus (HIV), hepatitis-B virus (HBV), and hepatitis-C virus (HCV). Workers exposed to bloodborne pathogens have highlighted the need to establish controls to eliminate or minimize exposure to potentially serious or life threatening illnesses.

This reference note is designed to help you understand the major elements of a bloodborne pathogens control program and give you general information about instituting such a program. We advise you to obtain a copy of the OSHA standard for *Occupational Exposure to Bloodborne Pathogens* (29 CFR Part 1910.1030) from your regional OSHA office for detailed instruction and wording of your control plan. In addition, consult your company's site nursing personnel, medical advisors, and your attorney regarding compliance with the OSHA standard. If your occupational health resources are limited, you might consider contracting with a local hospital or health agency to provide vaccinations, management of exposure incidents, and the training components of the program.

Ebola Virus Disease

For information regarding the Ebola Virus Disease, consult the Centers for Disease Control and Prevention (www.cdc.gov/vhf/ebola) and the World Health Organization (WHO) FAQ site (www.who.int/csr/disease/ebola/faq-ebola/en).

Who Needs a Program?

Employers of even one employee who may reasonably anticipate an exposure to blood or other body fluids in the course of doing his or her job are advised to put an exposure control program in place. Workers in the healthcare industry are especially at risk, but there are likely to be individuals, such as first-aiders, in your organization who are likely to be exposed at some point. An occupational health nurse or other licensed healthcare professional can advise and inform you regarding exposure, program components, and appropriate resources for putting a bloodborne pathogen control program in place.

Written Exposure Control Plan

An annotated copy of the standard is one way to complete your written plan. Your company's Exposure Control Plan must be reviewed and updated at least annually to reflect new or modified tasks or procedures that affect occupational exposure, and new or revised employee positions with occupational exposures.

Plan elements should include the following:

- **Exposure control plan:** Identify job classifications where all employees are potentially exposed to bloodborne pathogens; where some employees are potentially exposed; and tasks or procedures where exposure to blood or other potentially infectious materials could occur.
- **Implementation schedule and method:** Describe how and when you will meet the provisions of the standard as they apply to your worksite. Specify dates when provisions will be met.

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- **Exposure control plan update:** Update the plan annually to reflect changes in tasks, procedures, technological changes, and positions that eliminate or reduce occupational exposures. Document those changes including input from workers in identifying, evaluating, and selecting effective engineering and work practice controls.
- **Compliance methods:** Detail universal precautions (i.e., treating all body fluids as if they were infectious); engineering controls; work practice controls; personal protective equipment (PPE) such as gloves, gowns, eye protection, masks; and housekeeping plans, including a written schedule for cleaning contaminated surfaces.
- **HBV vaccination:** Describe the procedure for fulfilling vaccination requirements specified in the standard. If appropriate healthcare providers are not available on site, care must be taken that the designated provider has a copy of the standard and is familiar with requirements and will make a commitment to fulfill them.
- **Post-exposure evaluation and follow Up:** Detail your procedure for meeting requirements in the event of an exposure incident. Emphasis should be placed on the timeliness of this evaluation. The exposed employee should be seen by your company's designated physician within 24 hours so that appropriate testing, treatment, and follow up can begin.
- **Hazards communication:** Requirements for labeling and color-coding are detailed in the standard — follow if applicable.
- **Recordkeeping:** Refer to the standard for specific content. Consult your attorney regarding any legal requirements.
- **Special instructions:** Refer to the standard for special risks and requirements associated with HIV or HBV research and production facilities.

Information and Training

Provide initial training at the time of assignment to tasks where potential exposure may take place. Provide training annually, and update training if there are changes in the exposure control plan. Training should be conducted by a person who is knowledgeable about the program and its applicability to the specific workplace. Training must be provided during regular work time, at no cost to the employee, and use understandable material and language. Persons for whom English is a second language might require an interpreter. Employees must have an opportunity for a question and answer session with the trainer.

Follow these guidelines:

- Keep an accessible copy of the OSHA standard on hand, with an explanation of its contents.
- Give a general explanation of possible adverse health outcomes and modes of transmission of bloodborne pathogens.
- Explain your company's control plan and how employees can obtain a written copy.
- Explain the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials.
- Explain the use and limitations of methods to prevent or reduce exposure, such as universal precautions, engineering controls, safe work practices, and PPE.
- Provide information regarding PPE types, selection, use, location, removal, handling, decontamination, and disposal.

- Provide information on the efficacy, safety, administration, and benefits of HBV vaccination. These vaccinations must be offered free of charge, and employees who refuse vaccination should sign a declination form. If they later change their minds, the vaccine must be made available to them.
- Explain what to do and who to contact in case of an emergency involving blood or other potentially infectious material.
- Provide a detailed description of the procedure to follow in the event of an exposure incident, as well as the medical follow up and post-exposure evaluation procedures provided by the employer.
- Explain sign, label, and color-coding requirements.
- HIV or HBV laboratories and production facilities must provide additional employee training. Refer to the standard for details.

Recordkeeping

Your company must maintain both medical and training records for all at-risk employees. Medical records should contain information relative to HBV vaccination and exposure incidents, as well as post-exposure evaluation and follow up. These records are confidential; we advise that they be maintained separately, under the supervision of medical personnel.

Medical Record Content

- Name and identifying unique number
- Copy of HBV vaccination status
- Dates of vaccination
- Relative medical documentation
- Signed declination form if vaccination refused
- Any documentation relative to an exposure incident, including a copy of the information provided to the healthcare professional
- Training record content
- Dates of training
- Summary of training content
- Names and qualifications of trainer
- Names and job titles of all attendees

Engineering and Work Practices Controls

Engineering controls and safe work practices should be your first line of defense in eliminating or minimizing the risk of exposure. PPE is recommended when the exposure risk remains after such controls are in place.

Key areas to address include the following:

- Mandatory universal precautions
- Hand washing
- Handling needles and other sharps
- Regulations prohibiting eating, drinking, smoking, cosmetic application, contact lens handling, etc., in areas where there is potential exposure to bloodborne pathogens
- Procedures involving potential splashing, spraying, or splattering of blood, or other potentially infectious materials
- Labeling and transporting specimens, blood, and contaminated equipment

PPE use should be enforced to prohibit blood or other potentially infectious materials from reaching employees' clothing, skin, eyes, mouth, or mucous membranes under normal circumstances.

Housekeeping practices should ensure that an appropriate EPA-approved germicidal agent is used to maintain clean, sanitary conditions. Written cleaning schedules appropriate to the type of soil or contamination are recommended. Establish and enforce a procedure for decontaminating (i.e., use of an EPA-approved germicidal agent) surfaces that come in contact with any potentially infectious material. Specify disposal methods and container standards for disposing contaminated sharps and regulated waste.

Have employees follow universal precautions for handling laundry that has been in contact with blood or body fluids. Appropriate PPE and labeling may also be required.

Major Elements of an Exposure Control Program

- Written exposure control plan
- Exposure determination/job tasks
- Universal precautions
- Engineering and work practices controls, including PPE
- Information and training
- HBV vaccination
- Reporting and post-exposure evaluation/follow up
- Recordkeeping
- Labels and signs
- If applicable, special instructions for HIV or HBV research and production facilities

Refer to the OSHA standard for detailed instruction and wording of your control plan. An occupational health nurse or other licensed healthcare professional can provide technical information and program oversight. Your Liberty Mutual Risk Control Consultant may offer additional resources to help you.

References

OSHA Fact Sheet: OSHA's Bloodborne Pathogens standard

OSHA Safety and Health Topics: Bloodborne Pathogens and Needlestick Prevention (www.osha.gov/SLTC/bloodbornepathogens/index.html)

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