Protect workers from disease-causing bloodborne pathogens.

The Centers for Disease Control (CDC) estimates 5.6 million workers are exposed to bloodborne pathogens (BBP) on the job. Bloodborne pathogens are infectious microorganisms present in blood that can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV), hepatitis C virus (HCV), and human immunodeficiency virus (HIV), the virus that causes AIDS. Although many of these workers are in healthcare where exposure to blood and other potentially infectious materials is common, businesses outside of healthcare are often not fully aware of the potential BBP exposures their employees face, how to mitigate these exposures, or the regulatory requirements that may apply. This bulletin focuses on these exposures and strategies for preventing employee illness caused by bloodborne pathogens.

Evaluating exposures to bloodborne pathogens.

An occupational exposure to BBP is present when the performance of an employee’s duties can be reasonably anticipated to result in their physical contact with human blood or other potentially infectious materials (OPIM) without regard to the use of personal protective equipment. Contact includes direct contact with the skin, eyes, nose, mouth or other mucous membranes, as well as contact from piercing events such as needlesticks, human bites or cuts from contaminated objects. The Occupational Safety and Health Administration (OSHA) defines OPIM as any human body fluid that is visibly contaminated with blood; body fluids such as semen and vaginal secretions; most internal body cavity fluids; human tissue and organs; and more. If an occupational exposure exists, then the requirements of the OSHA standard 1910.1030 would apply.

It is up the employer to evaluate the tasks and procedures completed by employees to determine if an occupational exposure exists. Laundry services, fitness centers, amusement parks, restaurants and other retail/service industries are likely to find they have some level of BBP exposure, as are most general industry operations where medical care (including first aid) may be rendered.

Not surprisingly, workers with cleaning duties are often overlooked when evaluating BBP exposures, but the risk is certainly present. Cleaning staff at a wide range of establishments may encounter blood or other potentially infectious materials (OPIM) on floors, machinery, broken glass, in waste containers or on bed linens, mattresses or towels. They may also be subject to needlesticks or cuts from hidden sharps that are contaminated. If not properly handled, those who transport the soiled items and those laundering them may also be exposed.
Not all body fluids are considered OPIM. Urine, feces, vomit, sweat, tears and saliva are not considered to be a risk for BBP transmission unless they contain visible blood. Similarly, the presence of blood or OPIM is not the sole criterion. OSHA notes that properly disposed feminine hygiene products would not present an exposure as a regulated waste. The key aspect of the BBP evaluation question is, “Would the performance of my employee’s duties be reasonably anticipated to result in their contact with human blood or OPIM?” If answered with a definite or possible yes, an exposure control plan should be implemented. Even if the answer is no, training in BBP awareness and universal precautions should be provided.

**Exposure control plan.**

Once an employer has determined that one or more employees can be reasonably anticipated to contact blood or OPIM as part of normal job duties, it should then develop a written bloodborne pathogen program, referred to by OSHA as an exposure control plan (ECP). The required elements of an ECP are:

- A list of job classifications, tasks, and procedures with occupational exposure to blood and/or OPIM.
- Procedures for controlling employee exposure, such as:
  - Universal precautions
  - Engineering and work practice controls
  - Personal protective equipment
- Employee training in control procedures implemented in the workplace.
- Hepatitis B vaccination or declination. Per the OSHA standard, the Hepatitis B (HBV) vaccination must be offered after the worker has received the required bloodborne pathogens training and within 10 days of initial assignment to a job with occupational exposure. Those employees declining the vaccination should sign the OSHA-required Hepatitis B Vaccine Declination Form.
- Procedures for evaluating the circumstances surrounding exposure incidents, including evaluation and follow-up. An exposure incident is a specific eye, mouth, other mucous membrane, non-intact skin, or body opening contact with blood or OPIM.

The exposure control plan should be updated annually to reflect changes in tasks, procedures, and positions that affect occupational exposure, and technological changes that eliminate or reduce occupational exposure. In addition, employers should annually document in the plan that they have considered and begun using appropriate safer medical devices designed to eliminate or minimize occupational exposure. Employers should also document that they have solicited input from frontline workers in identifying, evaluating, and selecting effective engineering and work practice controls.
Control measures.

The goal of the exposure control plan is to determine and document procedures that control employee exposure to blood and OPIM and then repeatedly follow those procedures. Common bloodborne pathogens exposure control measures include:

- **Universal precautions.** All employees, not only those with a reasonably anticipated exposure, should be trained in the concept of universal precautions, which treats all human blood and OPIM as if known to be infected with bloodborne pathogens. By assuming that blood and OPIM are infected, employees will then take the necessary precautions to ensure their safety.

- **Engineering controls.** These are devices that isolate or remove the bloodborne pathogens hazard from the workplace. They include sharps disposal containers, self-sheathing needles, and safer medical devices, such as sharps with engineered sharps-injury protection and needleless systems. While many engineering controls are applicable to healthcare, they can also be beneficial in on-site medical facilities and restrooms in general industry facilities.

- **Work practice controls.** These are practices that reduce the possibility of exposure by changing the way a task is performed, such as appropriate practices for handling and disposing of contaminated sharps (for example, using a broom and dustpan to clean up broken glass), handling specimens, handling laundry, and cleaning contaminated surfaces and items (for example, using a 10:1 water to bleach solution or other disinfectant to spray blood and OPIM before touching, even with a gloved hand). Providing suitable hand-washing facilities or antiseptic hand cleaners is another work practice control that can limit exposure to BBP.

- **Personal protective equipment.** While most businesses understand the need to provide gloves when working with blood or OPIM, personal protective equipment (PPE) can also include gowns, eye protection, and face protection. The amount of PPE provided should match the likelihood of injury. For example, an office with only minor injuries anticipated may provide only gloves, whereas an industrial facility may require more extensive eye, face, and body PPE where splashes, spray, splatter, or drops of blood or OPIM may be generated. Employers should ensure that PPE is available and that it remains clean and in good condition.
Employee training.

The written exposure control plan forms the basis for an employee information and training program. Employers should ensure that workers receive regular training from a knowledgeable person that covers all elements of the bloodborne pathogens program, including at least the following:

- The employer’s exposure control plan and how to obtain a copy. Additionally, a copy of the OSHA 1910.1030 standard (or an electronic equivalent) should also be offered.
- Information on various bloodborne pathogens and diseases, including symptoms, modes of transmission, and how to recognize tasks that may involve exposure to blood and/or OPIM.
- Methods used to control occupational exposure, such as engineering controls, work practice controls, and personal protective equipment.
- Information on the hepatitis B vaccine.
- What to do and who to contact after a potential exposure incident to ensure the proper medical evaluation and post-exposure follow-up occur.

Employee training should occur prior to each employee’s initial assignment to a position with occupational exposure and at least annually thereafter. Further, retraining is required when new or modified procedures affect a worker’s occupational exposure. Training should be presented in a method understandable to employees and provide employees with an ability to ask questions to confirm understanding. Training documents and sign-in sheets should be retained indefinitely.

Container labeling.

Awareness of the potential presence of bloodborne pathogens is the first step to taking the proper precautions. Warning labels should be affixed to containers of regulated waste; containers of contaminated reusable sharps; refrigerators and freezers containing blood or OPIM; other containers used to store, transport, or ship blood or OPIM; contaminated equipment that is being shipped or serviced; and bags or containers of contaminated laundry, except as exempted in the OSHA standard.

Look to OSHA for additional resources.

To review OSHA guidelines and access additional helpful materials on bloodborne pathogens, go to https://www.osha.gov/SIATC/bloodbornepathogens/ where a variety of fact sheets, training materials, and other resources are available. An example Exposure Control Plan can be found at https://www.osha.gov/Publications/osha3186.html.

Providing solutions to help our members manage risk.

For your risk management and safety needs, contact Nationwide Loss Control Services: 1-866-808-2101 or LCS@nationwide.com.