



**Organizational and Safety Solutions** 

# **Bloodborne Pathogens**

## **Background**

Workers in many different occupations are at risk of exposure to bloodborne pathogens (BBP). Bloodborne pathogens are infectious microorganisms present in human blood that can cause disease in humans. These pathogens include, but are not limited to, Hepatitis B (HBV), Hepatitis C (HCV), and human immunodeficiency virus (HIV). OSHA estimates that 5.6 million workers in the health care industry and related occupations are at risk of occupational exposure to bloodborne pathogens. First aid team members, housekeeping personnel in some settings, nurses and other healthcare providers are examples of workers who may be at risk of exposure.

All occupational exposure to blood or other potentially infectious materials (OPIM) place workers at risk for infection with bloodborne pathogens. OSHA defines blood to mean human blood, human blood components, and products made from human blood. Other potentially infectious materials (OPIM) means the following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids. Any unfixed tissue or organ (other than intact skin) from a human (living or dead) and HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

On December 6, 1991, the Occupational Safety and Health Administration (OSHA) promulgated the Occupational Exposure to Bloodborne Pathogens Standard. This standard is designed to protect workers in the health care and related occupations from the risk of exposure to bloodborne pathogens.

#### <u>Scope</u>

The bloodborne pathogens standard covers all employees who could be "reasonably anticipated" as the result of performing their job duties to have contact with blood or other potentially infectious materials

(OPIM). "Good Samaritan" acts such as assisting a co-worker with a nosebleed would not be considered occupational exposure.

Employers are required to identify, in writing, tasks and procedures as well as job classifications where occupational exposure to blood occurs—without regard to personal protective clothing and equipment. Employers must document how engineering and work practice controls will be used to eliminate/mitigate occupational exposure in addition to feedback from front line staff. The plan must be accessible to employees and available to OSHA upon request. Employers must review and update it at least annually—more often if necessary to accommodate workplace changes.

## Methods of Compliance

The standard mandates universal precautions (treating body fluids/materials as if infectious), emphasizing engineering and work practice controls. These controls are required in order to minimize needlesticks, minimize splashing and spraying of blood. It also ensures appropriate packaging of specimens and regulated wastes, decontamination of equipment as necessary and proper labeling before shipping to servicing facilities.

Employers must provide at no cost, and require employees to use, appropriate personal protective equipment (PPE) such as gloves, gowns, masks, mouthpieces and resuscitation bags. Employers are required to clean, repair and replace these when necessary. Gloves are not necessarily required for routine phlebotomies in volunteer blood donation centers but must be made available to employees who want them.

#### Hepatitis B Vaccination

OSHA requires vaccinations to be made available to all employees who have occupational exposure to blood within 10 working days of initial assignment, at no cost, at a reasonable time and place, under the supervision of a licensed physician/licensed healthcare professional and according to the latest recommendations of the U.S. Public Health Service (USPHS). Employees must sign a declination form if they choose not to be vaccinated, but may later opt to receive the vaccine at no cost to the employee.

The CDC guideline regarding Hepatitis B is the Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Post-exposure Prophylaxis in Vol. 50, No. RR-11, published in the June 29, 2001 MMWR. It recommends that employees who have ongoing contact with patients or blood and are at ongoing risk for injuries with sharp instruments or needlesticks be tested for antibody to Hepatitis B surface antigen, one to two months after the completion of the three-dose vaccination series. Employees who do not respond to the primary vaccination series must be revaccinated with a second three-dose vaccine series and retested. Non-responders must be medically evaluated.

## Post Exposure Evaluation and Follow-up

Specifies procedures to be made available to all employees who have had an exposure incident plus any laboratory tests must be conducted by an accredited laboratory at no cost to the employee. Follow-up

must include a confidential medical evaluation documenting the circumstances of exposure, identifying and testing the source individual, if feasible, testing the exposed employee's blood if he/she consents, post-exposure prophylaxis, counseling, and evaluation of reported illnesses. All diagnoses must remain confidential.

# Information and Training

All employees must receive training initially upon assignment and at least annually thereafter. Training must include making accessible a copy of the regulatory text of the standard and explanation of its contents, general discussion on bloodborne diseases and their transmission, exposure control plan, engineering and work practice controls, personal protective equipment, hepatitis B vaccine, response to emergencies involving blood, how to handle exposure incidents, the post-exposure follow up procedures and warning signs/labels/color coding.

## Recordkeeping

Medical records for each employee with occupational exposure for the duration of employment plus 30 years, must be confidential and must include name and social security number; hepatitis B vaccination status (including dates); results of any examinations, medical testing and follow-up procedures; a copy of the healthcare professional's written opinion; and a copy of information provided to the healthcare professional. Training records must be maintained for three years and must include dates, contents of the training program or a summary, trainer's name and qualifications, and names and job titles of all persons attending the sessions. Medical records must be made available to the subject employee and anyone with written consent from the employee.

If you have any questions or would like additional information, please contact your local PMA Risk Control Consultant.

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