



Duke University - Facilities Management Department Environmental Safety and Health Program

BBP for FMD PROGRAM

Area: All FMD Organizations	Date Effective: August 2019
Issue No.: 1	Revision: 0
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- A. Purpose.** It is imperative to provide awareness and information about precautions employees can and should take to eliminate or minimize exposure to bloodborne pathogens. This program addresses all of the provisions of the Occupational Safety and Health Administration's (OSHA) Occupational Exposure to Bloodborne Pathogens Standard, and is implemented by both FMD and OESO.
- B. Scope.** This program applies to all designated FMD employees and supplemental labor working for FMD. Blood and body fluid precautions must be used by all employees and supplemental labor who may come in contact with any human blood, body fluid, or other potentially infectious materials (OPIM).
- C. Policy**
1. FMD will take all reasonable measures to provide a safe workplace. All FMD operations must be performed in a manner that will minimize potential risk to FMD and/or Duke employees, assets, the local community, and the environment.
 2. The provisions of this program and all applicable standards will be followed to ensure the safety of personnel performing service or maintenance activities to hardscapes, equipment, machines, or systems.
- D. Definitions**
1. **Blood:** Human blood, human blood components, and products made from human blood.
 2. **Bloodborne Pathogens:** Pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, Hepatitis B virus (HBV) and Human Immunodeficiency Virus (HIV).
 3. **Contaminated:** The presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.
 4. **Contaminated Sharps:** Any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wires.
 5. **Decontamination:** The use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.
 6. **Engineering Controls:** Where possible, engineering and work practice controls shall be used to eliminate or minimize employee exposures that isolate or remove the bloodborne pathogens hazard from the workplace.
 7. **Exposure Incident:** A specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties.

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8. **Handwashing Facilities:** A facility providing an adequate supply of running potable water, soap, and single-use towels or air-drying machines.
9. **Licensed Healthcare Professional:** A person whose legally permitted scope of practice allows him or her to independently perform the activities required by paragraph (f) Hepatitis B Vaccination and Post-exposure Evaluation and Follow-up.
10. **HBV:** Hepatitis B virus.
11. **Hepatitis B Vaccine Series:** Is an effective 3-shot series that protects against the Hepatitis B virus. If you do not have a current Hepatitis B infection, or have not recovered from a past infection, the Hepatitis B vaccination is an important way to protect yourself. The recommended schedule for the Hepatitis B vaccine is to receive the first shot, followed in one month by the second shot. Six months following the first shot, you should receive your third and final shot of the series.
12. **HIV:** Human Immunodeficiency Virus.
13. **Occupational Exposure:** Reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.
14. **Other Potentially Infectious Materials (OPIMs):** (1) 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; (2) Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and (3) 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.
15. **Parenteral:** Piercing mucous membranes or the skin barrier through such events as needle sticks, human bites, cuts, and abrasions.
16. **Personal Protective Equipment (PPE):** Specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts or blouses) not intended to function as protection against a hazard are not considered to be personal protective equipment.
17. **Source Individual:** Any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee. Examples include, but are not limited to, hospital and clinic patients; clients in institutions for the developmentally disabled; trauma victims; clients of drug and alcohol treatment facilities; residents of hospices and nursing homes; human remains; and individuals who donate or sell blood or blood components.
18. **Sterilize:** The use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.
19. **Supplemental Labor:** An outside service personnel who reports directly to an FMD supervisor each day for work, not their company's supervisor. FMD is responsible for the safety training of these workers in regards to the work they are performing at Duke.
20. **Universal Precautions:** An approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens.
21. **Work Practice Controls:** Controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles by a two-handed technique).

E. Responsibilities

1. FMD supervisors/managers are responsible for:
 - a. Ensuring designated employees and supplemental labor under their supervision receive training on this program's contents.
 - b. Ensuring designated employees and supplemental labor under their supervision understand and comply with practices/procedures identified in this program.

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- c. Ensuring designated employees and supplemental labor under their supervision comply with the Universal Precaution concept, as defined in this program.
 - d. Ensuring that new designated employees and supplemental labor under their supervision who have a risk of occupational exposure to blood and/or body fluids, meet with Employee and Occupational Health and Wellness (EOHW) for a health review and Hepatitis B evaluation within 10 working days of initial assignment; completing the Hepatitis B vaccine series in its entirety, or completing the declination portion of the Hepatitis B vaccination form (Appendix A), and return it to FMD Safety. If an employee does want to begin the vaccine series, an IR form obtained from Business Services must be brought by the employee to EOHW at the time of initial vaccination.
 - e. Ensuring employees and supplemental labor under their supervision have access to appropriate and necessary personal protective equipment.
 - f. Contacting OESO Biological Safety if there is a cleanup that produces contaminated material with over 20 ml of liquid blood or body fluids.
2. FMD designated employees are responsible for:
 - a. Adhering to the Universal Precaution concept as defined in this program.
 - b. Receiving the Hepatitis B vaccine series, or completing the declination portion of the Hepatitis B vaccination form (Appendix A), and returning to FMD Safety.
 3. FMD Safety is responsible for:
 - a. Using the Duke University Bloodborne Pathogen Exposure Control Plan to determine the exposure risk of functional area employees and supplemental labor who may come in contact with blood or body fluids as part of their job roles, and flagging the BBP for FMD training requirement on appropriate employees.
 4. OESO is responsible for:
 - a. Providing online BBP training to FMD employees requiring it; "BBP for FMD".
 - b. Linking the BBP for FMD online training course flag and the Hepatitis B vaccine series requirement; meaning if an employee is flagged for BBP for FMD training, they must also be flagged for Hepatitis B vaccination as well.
 - c. Maintaining a complete database of the exposure risk determinations.
 5. EOHW is responsible for:
 - a. Administering the Hepatitis B vaccine series.
 - b. Retaining employee Hepatitis B vaccination and/or declination records.

F. Methods

1. Engineering and Work Practice Controls
 - a. Puncture Precautions
 - i. Broken, contaminated, or potentially contaminated glassware must not be handled directly with hands, but must be cleaned up by mechanical devices such as brush and dustpan, tongs or forceps.
 - b. Hand/Skin Washing
 - i. Hands and other skin surfaces must be washed as soon as feasible if they become contaminated with human blood, body fluids, or OPIMs.
 - ii. Hands must be washed as soon as feasible after gloves are removed, and when leaving the work area.
 - c. Standard Safe Work Practices
 - i. Eating, drinking, smoking, applying cosmetics, and handling contact lenses are prohibited in work areas where there is reasonable likelihood of occupational exposure to human blood, body fluids, OPIMs, or where these specimens are handled.
 - ii. Food and drink shall not be stored in work areas where human blood, body fluids, or OPIMs are present.

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- iii. Procedures involving human blood, body fluids, or OPIMs are to be performed in a manner to minimize splashing, spraying, spattering, and droplet generation.
- d. Environmental Controls
 - i. Blood or body fluid spills must be decontaminated as soon as feasible. Spills should be soaked up with absorbent material (i.e., paper towels), and disinfectant.
 - ii. Disposable items (disposable gloves, etc.), contaminated with blood or body fluids should be placed in a sturdy, leak-proof plastic bag and tightly closed for transport. Double bagging may be necessary if hard edges might perforate a single bag.
 - iii. Contaminated material with less than 20 ml of liquid blood or body fluids can be disposed of in regular trash.
 - iv. Solid waste (i.e. solid feces or vomit) can be disposed of down the commode.
 - v. Contaminated material with more than 20 ml of liquid blood or body fluids must be covered (i.e., placed in a plastic bag) and labeled with a biohazard warning sign to prevent exposures during transport. In these types of rare cases, the supervisor should be contacted for instruction.
 - vi. Uniforms soiled or contaminated with blood or other body fluids can be placed in heavy duty rated bags next to the uniform bins

G. Personal Protective Equipment (PPE)

- 1. All employees and supplemental labor must routinely use appropriate PPE to prevent skin and mucous membrane exposure when contact with any human blood, body fluids, or OPIM is anticipated. Each department must assess the exposure potential from procedures performed by their employees and identify all procedures which necessitate routine use of personal protective equipment because of a probability of exposure. In addition, each employee should critically review their work responsibilities to make informed decisions regarding the appropriate use of personal protective equipment.
- 2. Gloves must be worn for touching human blood, body fluids, or OPIM, or handling items or surfaces soiled with these materials.
- 3. Masks and protective eyewear or face shields should be worn to prevent exposure of mucous membranes of the mouth, nose, and eyes during procedures that are likely to generate splashes or splatters of human blood, body fluids, or OPIM.
- 4. Appropriate protective gowns or aprons should be worn during procedures that are likely to generate splashes of human blood, body fluids, or OPIM.
- 5. Puncture resistant gloves and aprons must be worn for work in designated high risk areas while removing trash and sharps containers.
- 6. BBP Spill Kit Bags with all additional PPE, an Inventory List and BBP Spill Clean Up Guide (Appendix B and C) are kept with each supervisor in applicable functional areas and shops (Appendix D).

G. Hepatitis B Vaccination and Post Exposure Evaluation

- 1. Hepatitis B Vaccination
 - a. Supervisors must ensure that new employees with a risk of occupational exposure to blood and/or body fluids meet with Employee and Occupational Health and Wellness (EOHW) for a health review and Hepatitis B evaluation within 10 working days of initial assignment.
 - b. Employees with occupational exposures to human blood, body fluids, or OPIM must be offered and should be encouraged to participate in the free Hepatitis B vaccination program. Employees are to contact Employee Occupational Health and Wellness (EOHW) at 684-3136 to obtain the vaccine. If an employee does want to begin the vaccine series, an IR form obtained from Business Services must be brought by the employee to EOHW at the time of initial vaccination.

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2. Post-exposure Evaluation and Follow-Up
 - a. All human blood, body fluid, or OPIM exposures via needle sticks, punctures, or broken skin or mucous membrane contact must be reported immediately by calling the Exposure Hotline at 115 (Duke phone system) or 684-8115 (off-site service) for appropriate post-exposure follow-up and reporting on-line with the A-016 form. Employee Occupational Health will respond promptly.
 - b. The EOHW healthcare professional completing the post exposure evaluation will inform the employee of the test results and any potential medical conditions resulting from exposure. If further testing is required for the employee, EOHW will provide written instructions for follow-up evaluation and testing.

H. Training

1. Designated employees and supplemental labor who may come in contact with human blood or body fluids will be provided this program's training by their supervisor or FMD Safety on this Program's contents and requirements.
2. Online training will be provided and is required by designated employees upon hire and every three years, or as-needed. This might include when procedures change, and/or the work area changes.

I. References

1. 29 CFR 1910.1030 Bloodborne Pathogens
2. Duke University Exposure Control Plan- Duke University Research Laboratories and Other Non-Healthcare Areas: https://www.safety.duke.edu/sites/default/files/VI_IBloodbornePathogens-laboratories.pdf

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