



ENVIRONMENTAL HEALTH & SAFETY

Bloodborne Pathogen Exposure Control Plan

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Revision History:

December 8, 2014

August 18, 2015

Responsible Office: EH&S

I. Scope

This program applies to all William & Mary employees who may be exposed to blood and other potentially infectious materials in the performance of tasks and procedures, as part of the duties, described by their job classification.

II. Purpose

The purpose of this program is to protect workers from risks associated with exposure to Bloodborne Pathogens (BBP). This program provides guidelines to minimize or eliminate personnel exposure to BBP in accordance to Occupational Safety and Health Administration (OSHA) Bloodborne Pathogens Standard 29 CFR 1910.1030.

III. Definitions

Appropriately Labeled or Color-Coded: "Label" refers to the universal biohazard symbol, printed in fluorescent orange or orange-red color, with the word "Biohazard" printed in contrasting color. "Color-coded" refers to bags or containers that are red.

Blood: Human blood, human blood components and products made from human blood. Human blood components include plasma, platelets and serosanguinous fluids (e.g., wound exudates).

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).

Contaminated: The presence or the reasonably anticipated presence of human blood or other potentially infectious materials on an item or surface.

Contaminated Laundry: Laundry which has been soiled with blood or other potentially infectious materials.

Contaminated Sharps: Any contaminated object that can penetrate the skin including but not

limited to needles, broken glass and Exacto knife blades.

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 surface or item is rendered safe for handling, use or disposal.

Engineering Controls: Controls (i.e. sharps containers) that isolate or remove the Bloodborne pathogens hazard from the work place.

Employee: Any permanent or temporary employee, graduate or undergraduate student that receives a university paycheck and could potentially be exposed to bloodborne pathogens in the course of their work.

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.

Hand washing Facilities: A facility providing an adequate supply of running potable water, soap and single-use towel or hot air drying machines.

HBV: Hepatitis B Virus.

HIV: Human immunodeficiency virus.

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.

Other Potentially Infectious Materials (OPIM): Human bodily fluids including semen, vaginal secretions, cerebrospinal fluid, synovial fluid, lacrimal 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 bodily fluids and any unfixed tissue or organ (other than intact skin) from a human (living or dead).

Parenteral: Piercing mucous membranes or the skin barrier through such events as needlesticks, human bites, cuts and abrasions.

Personal Protected Equipment (PPE): Protective clothing, helmets, goggles, gloves or other garments or equipment designed to protect the wearer's body from injury or infection. General work clothes (i.e. uniforms, pants, shirts or blouses) not intended to function as protection against a hazard and are not considered personal protective equipment.

Regulated Medical Waste: Liquid or semi-liquid or other potentially infectious materials; contaminated items that would release blood or other potentially infectious material in a liquid or semi-liquid state if compressed; items that are cake with dried blood or other potentially

infectious materials capable of releasing these material during handling; contaminated sharps, pathological and microbiological wastes containing blood or other potentially infectious materials.

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 not limited to, trauma victims.

Universal Precautions (or standard precautions): An approach to infection control. The approach treats all human blood and certain human bodily fluids as if known to be infectious for HIV, HBV and other bloodborne pathogens.

Work Practice Controls: Controls that reduce the likelihood of exposure by altering the manner in which a task is performed.

IV. Responsibilities

- A. Environmental Health & Safety Office: Review the circumstances surrounding exposure incidents with the goal of identifying and correcting problems in order to prevent the recurrence of similar incidents. Ensure that a copy of the Bloodborne Pathogen Exposure Control Plan is accessible to employees.
- B. Director of Environmental Health & Safety or Program Manager: Develop and initiate implementation of the campus's Bloodborne Pathogen Exposure Control Plan. Advise personnel at all levels of responsibility on all aspects of the standard. Investigate occupational accidents involving blood or other potentially infectious materials and maintains all affiliated records. Act as liaison between the university's regulatory agencies concerning compliance with the Bloodborne Pathogens Standard. Conduct periodic inspections of departments to ensure compliance with the Bloodborne Pathogen Exposure Control Plan. Provide annual training and maintains training records.
- C. Human Resources (HR): Completes Occupational Safety and Health Administration (OSHA) recordkeeping requirements and maintain employee medical records for occupational exposure to Bloodborne pathogens.
- D. Faculty/ Primary Investigator (PI): Knows, understands and complies with all aspect of the Bloodborne Pathogen Exposure Control Plan. Identifies courses or majors in their respective programs that may be influenced by the Bloodborne Pathogens standard. Where such courses or majors are identified, faculty shall inform student employees of all relevant aspects of the standard and prepare them to safely perform their work at the university.
- E. Employees: Know, understand, and comply with all aspects of the Bloodborne Pathogen Exposure Control Plan.

V. Program

A. Exposure Determination

1. Employees who conduct occupational tasks with potential exposure to BBP are affected by this standard. The following tasks are examples where occupational exposure may exist:
 - a. All personnel involved in handling or transporting infectious waste.
 - b. Personnel who work on effluent plumbing system or other equipment which may be contaminated with blood or other potentially infectious materials.
 - c. Building Services Personnel responsible for cleanup of potential infectious material in residence halls or administrative buildings.
2. Students are not affected by this standard unless they are employed and receive a monetary payment from the university and perform a task where occupational exposure may be present. Faculty should train student employees and take action to minimize or eliminate their exposure to blood and other potentially infectious material (OPIM) in course and other university-sponsored activities.
3. A list of university job classifications in which all or some employees may have occupational exposure can be found in Appendix A.

B. Methods of Compliance

1. Universal Precautions
 - a. All blood or OPIM will be considered infectious regardless of the perceived status of the source.
 - b. Precautions must be taken when dealing with any situation where these fluids may be present and may or may not be avoidable. These precautions should be taken for all people, even if they are not sick or do not appear to have an apparent disease.
 - c. Universal Precautions shall be observed throughout all areas of the university where reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or OPIM may result and include the following:
 - i. Wear impermeable gloves when touching body substance.
 - ii. Wear any necessary personal protective equipment

(PPE) including but not limited to gowns, gloves, mask, and goggles.

- iii. Wash hands immediately after removing gloves or other protective equipment and after any hand contact with blood or potentially infectious fluids. If a sink is not available for hand washing, wash with soap and water as soon as possible.
- iv. Perform proper clean-up of blood or OPIM with approved chemical germ killers.
- v. Do not bend, shear, break, remove or recap any used needle or sharp. Dispose of used sharps in the proper containers. These containers must be puncture resistance, be properly labeled, and have leak proof sides and bottoms.
- vi. Use of a resuscitation device (to prevent mouth to mouth contact) when performing CPR.

C. Work Area Restrictions. Personnel should not eat, drink, apply cosmetics or lip balm, smoke or handle contact lenses in work areas where there is a reasonable likelihood of exposure to blood or OPIM.

D. Engineering Controls

Engineering controls shall be examined and maintained or replaced on a regular schedule and include:

- a. Puncture resistant and leak proof sharps containers shall be made available in suitable locations for the disposal of contaminate and needles.
- b. Biological safety cabinets shall be utilized for the containment of infectious aerosols and other agents; to protect the operator and protect others in the room. Cabinets must be certified annually or whenever moved or altered. Contact EH&S for assistance with biosafety cabinets. Prior to any disposal, cabinets must be decontaminated and approved for disposal by EH&S.
- c. Mechanical pipetting devices must be used. Mouth pipetting is prohibited.
- d. Waste handling and disposal shall utilize secondary containment to prevent exposure.

Engineering controls must be examined and maintained on a regular schedule. The schedule for reviewing the effectiveness of engineering controls is the responsibility of the PRINCIPAL INVESTIGATOR or AREA SUPERVISOR.

E. Work Practice Controls

Work practice controls are modifications of work procedures to reduce the risk of occupational exposure to blood or other potentially infectious materials.

1. Hand washing facilities shall be provided and maintained with adequate supplies. Where this is not feasible, antiseptic hand cleanser and proper paper towel or antiseptic towelettes shall be provided. If the latter is used, hands should be washed with soap and running water as soon as feasible. Hand washing shall be performed after removal of gloves and after contact with blood or OPIM.

Sharps/needles: Contaminated needles and other contaminated sharps will not be bent, recapped, removed, sheared or purposely broken. Sharps contaminated with carcinogens or mutagens must be separated from other sharps and labeled as such.

2. Personal Protective Equipment (PPE) shall be used when occupational exposure may occur even when engineering and work practice controls are in place. The types and characteristics of PPE shall depend on the task, location and degree of exposure anticipated. Forms of PPE that may be used are gloves, mask, CPR mask, protective clothing such as aprons or lab coats and eye protection devices such as safety glasses, goggles and face shields.
 - a. Gloves shall be worn where it can be reasonable anticipated that the employees may have hand contact with blood, OPIM, mucous membranes, and non-intact skin; and when handling or touching contaminated items or surfaces.
 - b. Disposable gloves shall be replaced as soon as practical when contaminated or as soon as feasible they are torn, punctured, or when the ability to function as a barrier is compromised.
 - c. Disposable gloves shall not be washed or decontaminated for re-use.
 - d. Masks, in combination with eye protection devices, such as goggles or glasses with solid side shields, or chin-length face shields, shall be worn whenever splashes, spray spatter, or droplets of blood or OPIM may be generated and eye, nose or mouth contamination can be reasonable anticipated.

3. Housekeeping

- a. Decontamination of surfaces or items shall be accomplished by utilizing a university approved germicidal solution.
2. B. All contaminated work surfaces, tools, objects etc. shall be decontaminated immediately or as soon as feasible after the spill of blood or OPIM. The disinfectant must be left in contact with contaminated work surface, tool, object etc. for at least 10 minutes before cleaning.
3. C. Broken glassware shall not be picked up directly with the hands. Personnel shall use tongs to collect the material or sweep/brush up the material into a dustpan.
4. D. Known or suspected contaminated sharps shall be discarded immediately or as soon as feasible in appropriate sharps containers.

F. Disposal

1. Contaminated material and any waste associated with potentially infectious material shall be disposed of as regulated medical waste. This material cannot be disposed of in the common trash receptacles.
2. The material should be collected in appropriate containers (i.e. biohazardous waste bags, sharps containers, etc.) and disposed of through the EH&S Office.
3. If the material is collected after normal business hours, it should be secured in a location that can be isolated and locked until the material can be collected by EH&S personnel.
4. When in doubt, material associated with a cleanup or incident should be considered potentially infectious and disposed of as a regulated medical waste.

G. Hepatitis B Vaccination, Post-exposure evaluation and Follow-up

1. The hepatitis B vaccine, post exposure evaluation and follow up shall be made available to employees determined to have a potential exposure to BBP.
2. The university has ensured that all medical evaluations and procedures including the hepatitis B vaccine and vaccination series and post exposure evaluation and follow-up, including prophylaxis are:
 - a. Available at no cost to employees.
 - b. Available at reasonable time and place to employees.
 - c. Performed by and under the supervision of a licensed physician or licensed health care professional.

- d. Provided according to the current recommendations of U.S. Public Health Services.
 - e. All laboratory tests are conducted by an accredited laboratory at no cost the employee.
3. The hepatitis B vaccination program will meet the following requirements:
- a. The vaccination series is available to employees after the required employee training is completed.
 - b. Any employee has the right to decline the hepatitis B vaccination. If the vaccine is declined the employee must sign the declination waiver.
 - c. Any employee who has initially decline the hepatitis B vaccination, but at a later date, while still covered under the standard decides to accept the vaccination, The university shall make available the hepatitis B vaccination at the time.
 - d. If a routine booster dose(s) of hepatitis B vaccine is recommended by the U.S. Public Health Service at a future dates, such booster does(s) shall be made available.
4. Following a report of an exposure incident, the university shall make immediately available to the exposed employee a confidential medical evaluation and follow-up. All exposure incidents should be reported the Human Resources Department using the First Report of Accident/Injury form.
5. The following elements will be included in the evaluation and follow-up:
- a. Documentation of the route(s) of exposure and the exposure incident circumstances.
 - b. Documentation and identification of source individual, if possible, and if possible the status of the source individual.
 - c. The blood of the source individual will be tested and documented for HIV/HBV infectivity in accordance to the law.
 - d. The employee shall be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual. According to the law, results of the testing of the source individual will be made available to the exposed employee.

- e. The employee will be offered the option of having their blood collected for testing of the employee's HIV/HBV serological status.
 - f. The blood sample will be preserved for up to 90 days to allow the employee time to decide if the blood should be tested for HIV serological status.
 - g. The exposure employee will be offered post-exposure prophylaxis in accordance with the current recommended actions of the U.S. Public Health Service.
 - h. The employee will be given appropriate counseling concerning precautions to take during the period after the exposure incident. The employee also will be given information on what potential illness to be alerted for and to report any related symptoms to appropriate personnel.
6. Human Resources assures the evaluation process, documentation and follow-up procedures are effectively carried out in accordance with Worker's Compensation.
- a. HR maintains medical records provided by the employee only.
 - b. HR is not authorized to request employee medical records from physicians, health care professionals or medical facilities.

H. Information and Training

1. The university will train all employees with occupational exposure to BBP. This training will be provided at no cost to the employee and during working hours.
2. The training shall be annual and within one year of previous training.
3. The training program shall contain at minimum the following elements:
 - a. An explanation of the regulatory text of the OSHA Bloodborne Pathogen Standard.
 - b. A general explanation of the epidemiology and symptoms of Bloodborne diseases. An explanation of the modes of transportation of bloodborne pathogens.
 - c. An explanation of the Bloodborne Pathogen Exposure Control Plan and how the employee can obtain a copy of the written plan.

- d. An explanation of the appropriate methods of recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials.
- e. An explanation of the use and limitation of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and personal protective equipment.
- f. An explanation on the use, decontamination and disposal of personal protective equipment.
- g. An explanation the hepatitis B vaccination program available from the university.
- h. An explanation of the evaluation and follow-up program if an exposure incident occurs.
- i. An explanation of the signs and label and /or color coding required.
- j. An opportunity for interactive questions and answers with the person conducting the training session.

I. Recordkeeping

- 1. The university shall establish and maintain an accurate record for each employee with occupational exposure. This record shall include the employee name, all medical records detailing examination results, medical testing, follow-up procedures and physician's written opinion related to the exposure.
- 2. All medical records shall be kept confidential and shall not be disclosed or reported without the employee's written consent to any person within or outside of the workplace, except as required by law.
- 3. The records shall be maintained for the duration of the employment plus 30 years in the employee's personnel folder with Human Resources.
- 4. The training records shall including the following:
 - a. The date of the training session.
 - b. The contents or summary of the training session.



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- c. The names of persons conducting the session.
- d. The names of all persons attending the training session.
- e. Training records shall be maintained for three years from the date of training.

Attachment A:

Job classifications in which all employees may be expected to incur occupational exposure to blood or other potentially infectious materials:

Athletic Coaches
Director of Medical Services for Athletics
Student Health Center Physician
Student Health Center Nurse Practitioners
Student Health Center Nurses (RN and LPN)
Student Health Center Pharmacist
Student Health Center Lab Technicians
EH&S positions
W&M Police Department positions

Job classifications in which some employees may be expected to incur occupational exposure to blood or other potentially infectious materials:

Operations & Maintenance plumbing positions within Facilities Management
Building Services positions within Facilities Management
Sports Medicine positions within Athletics
Resident Advisors
Head Resident
Athletics Facilities & Operations employees
All Athletic Trainers



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Rec Center workers
Vertebrate Animal Care Unit positions

This list may not cover all job classifications where an employee may be expected to incur occupational exposure to blood or other potentially infectious materials. Some employees with a job classification on this list may not be at risk. A risk assessment must be performed by the supervisor.