George Mason University

Bloodborne Pathogens Exposure Control Plan

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Document History

Version	Date	Comments
1	February, 2009	Initial *Bloodborne Pathogens Exposure Control Program*
2	June, 2013	Review and update
3	February, 2017	Review and update

Acronyms

CFR	Code of Federal Regulations
ECP	Exposure Control Plan
EHS	Environmental Health and Safety Office
HBV	Hepatitis B Virus
HIV	Human Immunodeficiency Virus
IBC	Institutional Biosafety Committee
OPIM	Other Potentially Infectious Materials
PPE	Personal Protective Equipment
SHS	Student Health Services

1.0 Introduction

George Mason University's *Bloodborne Pathogens Exposure Control Plan* (ECP) covers employees whose job duties include the risk of reasonably-anticipated occupational exposure to human blood and/or other potentially infectious materials (OPIM), and complies with 29 CFR 1910.1030 *Bloodborne Pathogens*. This plan applies to George Mason University employees only; contractors are expected to comply with 29 CFR 1910.1030 and their own company's exposure control plan.

2.0 Roles and Responsibilities

2.1 Environmental Health and Safety Office (EHS)

Specific responsibilities of the Environmental Health and Safety Office (EHS) relating to bloodborne pathogens exposure control are to:

- Administer the George Mason University ECP.
- Oversee compliance with 29 CFR 1910.1030 (*Bloodborne Pathogens Standard*).
- Provide technical guidance on safety controls to include engineering, administrative, and personal protective equipment (PPE).
- Manage the Hepatitis B virus (HBV) vaccination program.
- Manage the disposal of regulated medical waste for all of George Mason University.

2.2 Institutional Biosafety Committee (IBC)

Specific responsibilities of the Institutional Biosafety Committee (IBC) related to the ECP are to:

- Review laboratory needlestick incidents and make recommendations for improvement.
- Educate laboratory personnel on safer sharps alternatives and provide recommendations as necessary.

2.3 Student Health Services (SHS)

Specific responsibilities of Student Health Services (SHS) related to the ECP are to:

- Evaluate sharps safety per the *Bloodborne Pathogens* standard at least once per calendar year. Make improvements as needed.
- Provide HBV vaccinations to employees as authorized by EHS.
- Administer HBV vaccinations according to the current United States Public Health Department, Centers for Disease Control and Prevention protocols.
- Notify EHS of an employee's vaccination status.
- Provide consultation to EHS on any unusual or special circumstances related to an individual's vaccination status.

2.4 Human Resources and Payroll Workers' Compensation Department

Specific responsibilities of the Workers' Compensation Department relating to the ECP are to:

- Maintain and update the *Sharps Injury Log*.
- Maintain records regarding exposure incidents per 29 CFR 1910.1030 and 29 CFR 1910.1020.
- Provide Workers' Compensation medical providers with appropriate documentation including the following (if not already on file):
  - 29 CFR 1910.1030;
  - A description of exposed employee's duties;
  - Documentation of route of exposure;

    - Results of the source materials testing, if available; and
    - All medical records relevant to the appropriate treatment of the employee.
- Arrange for post-exposure care as needed with the Workers' Compensation medical provider.
- Notify EHS of exposure incidents within two business days of when Workers' Compensation becomes aware of the incident.

2.5 Supervisors

Specific responsibilities of supervisors related to the ECP are to:

- Identify employees that are at risk of exposure to bloodborne pathogens through the course of their work, based on the criteria in Section 3.0 of this plan.
- Annually evaluate the worksite for any administrative and work practice controls which may mitigate or eliminate the occupational exposure to blood or OPIM.
- Select, obtain, and ensure an adequate supply of appropriate PPE for all at-risk personnel and require them to use PPE according to established department or work area protocols.
- Select, obtain, and ensure an adequate supply of appropriate disinfection and handwashing supplies for use in the workplace.
- Require at-risk personnel to attend initial training immediately upon assignment, and annually thereafter.
- Solicit non-managerial employee input on administrative and work practice controls.
- Ensure proper procedures are in place for hazardous/regulated waste management per George Mason University policy.
- Enforce work practices outlined in the exposure control plan.
- In the event that an employee is exposed to human blood or OPIM, assist him or her with post-exposure evaluation, treatment, and notification. The supervisor must cooperate fully with any post-exposure incident investigations surrounding the exposure.
- Comply with all directives in this plan.

2.6 Personnel

Personnel include faculty (professional, administrative, and research), staff (classified, wage), affiliates (visiting faculty, visiting researchers), and paid students (graduate students, undergraduate students, laboratory assistants, etc.) who may be potentially exposed to blood or OPIM. This does not refer to students enrolled in instructional courses. Specific responsibilities of personnel related to the ECP are to:

- Attend initial and annual training. Initial training must be completed before beginning an at-risk position where an exposure may occur.
- Within 10 days of initial assignment to an area with reasonably-anticipated risk of exposure to blood or OPIM; and after initial training, employees must either accept or decline an HBV immunization:
    - Accept HBV immunization offer and initiate or resume the HBV immunization series and ensure verification of receipt of the vaccine is sent to EHS; or
    - Decline HBV immunization offer.

3.0 Exposure Determination

George Mason University has identified personnel with potential exposure to bloodborne pathogens in the workplace, based on the general work environment or on specific work activities. The following work activities were identified as having potential exposure to bloodborne pathogens:

- Being trained as a first aid provider;
- Working in a clinical setting;
- Working in a laboratory with human blood or OPIM; and
- Containing and/or cleaning spills of blood or OPIM.

Employees listed in Table 1 must attend *Bloodborne Pathogens Training,* and comply with all requirements of this plan:

Table 1. Department/Program Exposure Determination Listing

All Employees	Designated Employees Only
Student Health Services	Aquatic and Fitness Center
Laboratory personnel working with human blood or OPIM	Freedom Aquatic and Fitness Center
University Police	Intercollegiate Athletics
EHS technical staff	Facilities Management – Housekeeping
Designated first aid responders	Child Development Center
Facilities Management – Plumbing Shop	College of Education & Human Development, School of Recreation, Health and Tourism
Housing - Housekeeping	College of Education & Human Development, Athletic Training Education Program
The EDGE	

4.0 Exposure Control

Engineering and work practice controls are methods used to eliminate or minimize personnel exposure to bloodborne pathogens.

4.1 Universal Precautions

Universal precautions will be observed at George Mason University in order to prevent contact with blood or OPIM. All human blood or OPIM will be considered infectious, regardless of the perceived status of the source material. Laboratory personnel working with blood or OPIM must follow universal precautions and comply with all Biosafety Level 2 work practices and procedures outlined in the Biosafety Manual.

4.2 Engineering Controls

Engineering controls are devices or systems which isolate or remove the bloodborne pathogens exposure hazard from the workplace. In laboratories, biosafety cabinets are used for procedures with infectious or potentially-infectious materials when there is a potential for splash, splatter, or aerosol creation. Safe sharps are available to clinical personnel and recommended for laboratory personnel. Sharps containers are used for the disposal of sharps.

4.2.1 Sharps Safety

The use of safe sharps technology is reviewed by SHS and a subcommittee of the IBC. The IBC reviews needlestick incidents that occur in research laboratories, and offers suggestions for new control technology. SHS solicits feedback from nonsupervisory employees from each aspect of their patient-care practice regarding the use of sharps and sharps containers as part of their Infection Control Committee.

Needlestick incidents subject to the *Bloodborne Pathogen Standard* are reported to the Human Resources Worker's Compensation department and tracked on a Sharps Injury Log. EHS reviews the Sharps Injury Log as part of the annual ECP review. In addition, EHS is alerted any time an incident occurs and conducts an incident investigation to determine corrective actions which may prevent similar incidents in the future.

4.3 Work Practice Controls

The following work practice controls must be incorporated for all at-risk work areas and personnel:

- Personnel shall wash their hands immediately or as soon as feasible after removal of gloves or other PPE.
- Personnel shall wash hands and any other skin with soap and water, or flush mucous membranes with water immediately or as soon as feasible following contact of such body areas with blood or OPIM.

- Contaminated needles and other contaminated sharps shall not be bent, recapped, or removed except as noted below. Shearing or breaking of contaminated needles is prohibited.
    - Contaminated needles and other contaminated sharps shall not be bent, recapped, or removed unless it can be demonstrated that no alternative is feasible or that such action is required by a specific medical or dental procedure.
    - Such bending, recapping, or needle removal must be accomplished through the use of a mechanical device or a one-handed technique.
    - Immediately or as soon as possible after use, contaminated reusable sharps shall be placed in appropriate containers until properly reprocessed. These containers shall be:
        - Puncture resistant;
        - Labeled or color-coded in accordance with this standard;
        - Leak-proof on the sides and bottom; and
        - In accordance with the requirements set forth in the *Bloodborne Pathogen Standard* for reusable sharps.
- Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas where there is a reasonable likelihood of occupational exposure.
- Food and drink shall not be kept in refrigerators, freezers, shelves, cabinets or on countertops or benchtops where blood or OPIM are present.
- All procedures involving blood or OPIM shall be performed in such a manner as to minimize splashing, spraying, spattering, and generation of droplets of these substances.
- Mouth pipetting/suctioning of blood or OPIM is prohibited.
- Specimens of blood or OPIM shall be placed in a container which prevents leakage during collection, handling, processing, storage, transport, or shipping.
    - The container for storage, transport, or shipping shall be labeled with the biohazard symbol and closed prior to being stored, transported, or shipped. When a facility utilizes Universal Precautions in the handling of all specimens, the labeling/color-coding of specimens is not necessary provided containers are recognizable as containing specimens. This exemption only applies while such specimens/containers remain within the facility. Labeling with the biohazard symbol is required when such specimens/containers leave the facility.
    - If outside contamination of the primary container occurs, the primary container shall be placed within a second container which prevents leakage during handling, processing, storage, transport, or shipping and is labeled or color-coded according to the requirements of this standard.
    - If the specimen could puncture the primary container, the primary container shall be placed within a secondary container which is puncture-resistant in addition to the above characteristics.
- Equipment which may become contaminated with blood or OPIM shall be examined prior to servicing or shipping and shall be decontaminated as necessary, unless the employer can demonstrate that decontamination of such equipment or portions of such equipment is not feasible.
- A readily-observable biohazard label shall be attached to the equipment stating which portions remain contaminated.

4.4 Personal Protective Equipment (PPE)

Where there is risk of occupational exposure, George Mason University will provide, at no cost to the employee, appropriate PPE including, but not limited to, gloves, gowns, laboratory coats, face shields or masks and eye protection, and mouthpieces, resuscitation bags, pocket masks, or other ventilation devices. PPE will be considered "appropriate" only if it does not permit blood or OPIM to pass through to or reach the employee's work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time which the protective equipment will be used.

PPE shall be used and maintained as follows:

- If a garment is penetrated by blood or OPIM, the garment shall be removed immediately or as soon as feasible.
- All PPE shall be removed prior to leaving the work area.
- When PPE is removed, it shall be placed in an appropriately-designated area or container for storage, washing, decontamination, or disposal.
- Gloves shall be worn when it can be reasonably anticipated that the employee may have hand contact with blood, OPIM, mucous membranes, and non-intact skin; when performing vascular access procedures and when handling or touching contaminated items or surfaces.
- Disposable (single use) gloves, such as surgical or examination gloves, shall be replaced as soon as practical when contaminated or as soon as feasible if they are torn, punctured, or when their ability to function as a barrier is compromised.
- Disposable (single use) gloves shall not be washed or decontaminated for reuse.
- Utility gloves may be decontaminated for reuse if the integrity of the glove is not compromised. However, they must be discarded if they are cracked, peeling, torn, punctured, or exhibit other signs of deterioration or when their ability to function as a barrier is compromised.
- 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 reasonably anticipated.
- Appropriate protective clothing such as, but not limited to, gowns, aprons, lab coats, clinic jackets, or similar outer garments shall be worn in occupational exposure situations. The type and characteristics will depend upon the task and degree of exposure anticipated.
- Surgical caps or hoods and/or shoe covers or boots shall be worn in instances when gross contamination can reasonably be anticipated (e.g., autopsies, orthopedic surgery).

5.0 Housekeeping Procedures

Housekeeping procedures are conducted to ensure proper decontamination of surfaces in areas where contamination with blood or OPIM may occur. Employees are responsible for ensuring proper decontamination procedures are followed and that proper disinfectants are used. Examples of proper housekeeping procedures include, but are not limited to: surface decontamination, a written cleaning schedule, barriers, and proper spill supplies.

- All equipment and surfaces in the work area must be cleaned and decontaminated after contact with blood or OPIM, after completion of procedures where blood or OPIM may have been spilled, and at the end of the work shift. Contact EHS if assistance is needed in determining an appropriate disinfectant.
- A written schedule of cleaning, which includes the methods of decontamination, must be implemented in all work areas and departments where there is occupational risk of exposure to blood or OPIM.
- Disposable protective barriers used on surfaces and equipment must be removed and replaced as soon as feasible when overt contamination occurs or at the end of the work shift if they may have become contaminated. When removed, the surface under the barrier should be decontaminated with the appropriate disinfectant prior to replacing the barrier.
- All bins, pails, cans, and similar receptacles intended for reuse which have a reasonable likelihood of becoming contaminated must be inspected and decontaminated on a regular schedule or as soon as feasible if known contamination occurs.
- Small spills may be cleaned by laboratory personnel following the following steps:
  (1) Isolate the spill area, don appropriate PPE, and lay absorbent materials on top of the spill.
  (2) Spray the spill area with 10% bleach solution, saturating all materials.
  (3) After 20 minutes of contact time; remove all absorbent material and place in a red bag for disposal.
  (4) Spray the spill area with 10% bleach solution, and conduct a final wipe of the area, working from the outside-in.
- For large spills, of blood or OPIM, and in instances where you are unsure of response, isolate the spill area and alert other area personnel, then contact EHS as soon as possible for assistance.
- Contaminated broken glassware or other sharp objects must be cleaned up using mechanical devices such as tongs, forceps, or a disposable brush and dust pan, and placed in a sharps container for disposal.

5.1 Regulated Waste

Regulated waste includes the following materials: liquid or semi-liquid blood or OPIM; contaminated items that would release blood or OPIM in a liquid or semi-liquid state if compressed; items that are caked with dried blood or OPIM and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or OPIM.

All regulated waste must be placed in containers which are closable, constructed to contain all contents and prevent leakage, appropriately labeled, and closed prior to removal to prevent spillage or protrusion of contents during handling. Contaminated sharps must be discarded immediately, or as soon as possible after use, in containers that are closable, puncture-resistant, leak-proof on sides and bottom, and appropriately labeled. Sharps disposal containers must be easily accessible and as close as feasible to the immediate area where sharps are used.

All regulated medical waste must be treated in accordance with Virginia Regulated Medical Waste Management regulations Regulated waste from most laboratories must be inactivated using a steam autoclave, and can then be discarded as nonregulated waste. Only personnel who have been trained to operate an autoclave are permitted to treat regulated waste. Regulated waste from health clinics, childcare centers, athletic facilities, housekeeping operations, and selected laboratories is packaged in approved shipping containers for off-site incineration.

Regulated waste supplies (sharps containers, labeled waste bins, shipping containers, etc.) are provided by EHS on request.

5.2 Laundry Procedures

Employees working in an area with potential bloodborne pathogens exposure should wear closed-toe shoes and clothing that covers the legs. Shorts may be worn in work areas where there is minimal likelihood of exposure, such as in a fitness facility where the only anticipated exposure would be first aid care. All, non-disposable PPE, such as lab coats, must be removed and inspected before leaving the work area. Any contaminated items must be appropriately disinfected or laundered before reuse.

Each department or program is responsible for determining the need for a laundry service. Departments which do not use lab coats but may still have an exposure to blood or OPIM, such as Athletics and Recreation, are required to developing laundry procedures specific to their location(s).

Employees must follow universal precautions when handling contaminated laundry. Contaminated laundry must be handled as little as possible with a minimum of agitation, and must be bagged and labeled at the location where it was used. Whenever contaminated laundry is wet and presents a reasonable likelihood of soak-through of or leakage from the bag or container, the laundry shall be placed and transported in bags or containers which prevent soak-through and/or leakage of fluids to the exterior. Laundry contractors must comply with all decontamination and cleaning procedures outlined in 29 CFR 1910.1030.

6.0 Human Immunodeficiency Virus (HIV) and Hepatitis B Virus (HBV) Research Laboratories and Production Facilities

Research laboratories and production facilities engaged in the culture, production, concentration, experimentation, and manipulation of human immunodeficiency virus (HIV) and HBV must comply with the following work practices and procedures:

- All regulated waste shall either be incinerated or decontaminated by a method such as autoclaving known to effectively destroy bloodborne pathogens.
- Laboratory doors shall be kept closed when work involving HIV or HBV is in progress.
- Contaminated materials that are to be decontaminated at a site away from the work area shall be placed in a durable, leak-proof, labeled, or color-coded container that is closed before being removed from the work area.
- Access to the work area shall be limited to authorized persons. Written policies and procedures shall be established whereby only persons who have been advised of the potential biohazard, who meet any specific entry requirements, and who comply with all entry and exit procedures shall be allowed to enter the work areas and animal rooms.
- When OPIM or infected animals are present in the work area or containment module, a hazard warning sign incorporating the universal biohazard symbol shall be posted on all access doors.
- All activities involving OPIM shall be conducted in biological safety cabinets or other physical-containment devices within the containment module. No work with OPIM shall be conducted on the open bench.
- Laboratory coats, gowns, smocks, uniforms, or other appropriate protective clothing shall be used in the work area and animal rooms. Protective clothing shall not be worn outside of the work area and shall be decontaminated before being laundered.
- Special care shall be taken to avoid skin contact with OPIM. Gloves shall be worn when handling infected animals and when making hand contact with OPIM is unavoidable.
- Before disposal, all waste from work areas and from animal rooms shall either be incinerated or decontaminated by a method such as autoclaving known to effectively destroy bloodborne pathogens.
- Vacuum lines shall be protected with liquid disinfectant traps and high-efficiency particulate air filters or filters of equivalent or superior efficiency and which are checked routinely and maintained or replaced as necessary.
- Hypodermic needles and syringes shall be used only for parenteral injection and aspiration of fluids from laboratory animals and diaphragm bottles. Only needle-locking syringes or disposable syringe-needle units (i.e., the needle is integral to the syringe) shall be used for the injection or aspiration of OPIM. Extreme caution shall be used when handling needles and syringes. A needle shall not be bent, sheared, replaced in the sheath or guard, or removed from the syringe following use. The needle and syringe shall be promptly placed in a puncture-resistant container and autoclaved or decontaminated before reuse or disposal.
- All spills shall be immediately contained and cleaned up by appropriate professional staff or others properly trained and equipped to work with potentially concentrated infectious materials.
- A spill or accident that results in an exposure incident shall be immediately reported to the laboratory director or other responsible person.

- A biosafety manual shall be prepared or adopted and periodically reviewed and updated at least annually or more often if necessary. Personnel shall be advised of potential hazards, shall be required to read instructions on practices and procedures, and shall be required to follow them.

HIV and HBV research laboratories shall meet the following facility criteria:

- Each laboratory shall contain a facility for handwashing and an eyewash facility which is readily available within the work area.
- An autoclave for decontamination of regulated waste shall be available.

Employees in HIV or HBV research laboratories and HIV or HBV production facilities receive the following initial training in addition to the above training requirements.

- The supervisor or Principal Investigator shall assure that personnel demonstrate proficiency in standard microbiological practices and techniques and in the practices and operations specific to the facility before being allowed to work with HIV or HBV. The supervisor shall assure that personnel have prior experience in the handling of human pathogens or tissue cultures before working with HIV or HBV.
- The supervisor shall provide a training program to personnel who have no prior experience in handling human pathogens. Initial work activities shall not include the handling of infectious agents. A progression of work activities shall be assigned as techniques are learned and proficiency is developed. The supervisor shall assure that personnel participate in work activities involving infectious agents only after proficiency has been demonstrated.

Additional George Mason University-specific requirements for HIV laboratories:

- The supervisor or Principal Investigator shall assure that personnel attend training on working safely with HIV.
- Additional personal protective equipment will be worn as determined by risk assessment.
- All personnel working with HIV must be trained on post-exposure prophylaxis (PEP), including the location and use of PEP medications.

7.0 Hepatitis B (HBV) Vaccinations, Post-exposure Evaluation, and Follow-Up

George Mason University offers the HBV vaccination series to all employees with potential occupational exposure to blood or OPIM. Mason determines eligibility for this benefit through required *Bloodborne Pathogens Training*. Post-exposure evaluation and follow-up may be necessary in the event of an exposure incident. George Mason University also provides post-exposure prophylaxis through an occupational physician to employees who work in HIV research laboratories who have had an exposure incident.

George Mason University shall ensure that all medical evaluations and procedures, including the HBV vaccination series and post-exposure follow-up including prophylaxis, are:

- Made available at no cost to personnel;
- Made available at a reasonable time and place;
- Performed by or under the supervision of a physician or other licensed healthcare provider; and
- Provided according to the recommendations of the United States Public Health Service.

7.1 Hepatitis B Virus (HBV) Vaccination

Supervisors are responsible for ensuring that employees attend *Bloodborne Pathogens Training* upon initial assignment to a job where they may be exposed to blood or OPIM. During initial training, employees will be asked to complete a *Hepatitis B Vaccination Form,* indicating their acceptance or declination of the HBV vaccination. An employee may accept or decline the HBV vaccine for any reason, and is not obligated to provide any explanation.

A vaccine authorization letter will be sent to all employees who request the vaccine, and the authorization letter may be taken to any SHS location to get the vaccine. The vaccine is given as a series of three separate injections; and all three injections must be administered according to schedule in order for the vaccine to be effective. A post-vaccination titer for HBV antigens is recommended, but not required; and is typically scheduled for one-to-two months after the third injection. Each employee is responsible for scheduling and following through with vaccine administration.

Any employee who initially declines the HBV vaccine, but later decides to accept the vaccination while still covered by the standard, shall be asked to submit a new *Hepatitis B Vaccination Form.*

7.2 Post-exposure Evaluation and Follow-Up Procedures

An exposure is defined as: (1) blood or OPIM contact with a specific eye, mouth, or other mucous membrane; (2) blood or OPIM contact with damaged or non-intact skin; or (3) parenteral contact with blood or OPIM that results from the performance of an employee's duties. *Blood or OPIM contact with intact skin is <u>not</u> considered an exposure incident!*

If exposed to blood or OPIM, an employee should immediately take steps to address any serious injury and rinse the site of exposure.

- Seek emergency medical care for serious injuries, if necessary. Inform responding personnel that a potential bloodborne pathogen exposure has occurred.
- If no emergency treatment is necessary, remove any contaminated PPE or clothing covering the exposure area and begin flushing with soap and water for 15 minutes. The area should be washed thoroughly, but not scrubbed to avoid any further risk of exposure or damage.
- If exposure occurs to the eyes, flush with water only for 15 minutes using an eyewash station.
- After flushing, provide first aid treatment, if necessary.
- Disinfect any contaminated equipment where exposure occurred, if contaminated. (Seek assistance if needed.)
- Dispose of any contaminated materials in a biohazard waste receptacle.

Following the initial exposure response, the employee should address any potential exposure by completing necessary paperwork and seeing an occupational health physician.

Isolate a sample for testing, if feasible.

- Notify your supervisor as soon as possible after the exposure incident.
- The employee or supervisor should also notify EHS of the exposure by telephone at 703-993-8448 as soon as possible.
- Seek medical evaluation for guidance on post-exposure evaluation, as needed.
- As soon as feasible, complete a *First Report of Accident* form and send it to the Workers' Compensation Department.

8.0 Labels and Signs

Potential bloodborne pathogen hazards are communicated to employees by a fluorescent orange or red-orange universal biohazard signs or labels. The universal biohazard signs or labels must be affixed to:

- Regulated medical waste;
- Refrigerators and freezers containing blood or OPIM;
- Other containers used to store, transport, or ship blood or OPIM;
- Contaminated equipment; and
- Entrances to laboratories or storage areas containing blood or OPIM.

The labels must be affixed as close as feasible to the container by string, wire, adhesive, or other method which prevents loss or unintentional removal. Contaminated equipment labels must include a description of which portions of the equipment are contaminated. In absence of a description, all surfaces of equipment are presumed to be contaminated.

The following are exempt from the labeling requirement:

- Containers of blood products that have been released for clinical use;
- Containers of blood or OPIM that are placed in a labeled secondary container for storage, transport, shipment, or disposal; and
- Regulated medical waste that has been decontaminated.

9.0 Information and Training

George Mason University provides the following courses to satisfy training requirements of the *Bloodborne Pathogens Standard*:

- *Bloodborne Pathogens Training* (the target audience is non-laboratory personnel with an occupational exposure to blood or OPIM);
- *Biological Safety for BSL-2 Laboratories* and *BSL-2 Biosafety Refresher* trainings (the target audience is laboratory personnel working with infectious or potentially-infectious materials, including human blood or OPIM); and
- *Working Safely with HIV* training (the target audience is laboratory personnel who work directly with HIV).

Supervisors are responsible for ensuring that employees are trained upon initial assignment to tasks where there is potential for occupational exposure to blood or OPIM. Personnel are **not** permitted to conduct activities where there is a potential for exposure to blood or OPIM until required training has been completed. All bloodborne pathogens training is provided by EHS, and must be completed annually.

10.0 Recordkeeping

In accordance with 29 CFR 1910.1020, employee records shall be made available to employees, the Assistant Secretary of Labor for Occupational Safety and Health Administration, and the Director of the National Institute for Occupational Safety and Health, or their representatives, upon request.

Employee records are maintained as follows:

Record	Location	Duration
Medical records: • Employee's name and G number; and • HBV vaccination forms indicating acceptance or declination of vaccine.	EHS	Duration of employment plus 30 years
Training records: • Date of training; • Outline of the materials presented; • Name of person conducting the training; and ▪ Names and G# of all persons in attendance.	EHS	At least three years from the date of training
Sharps Injury Log: • The type and brand of device involved in the incident; • The department or work area where the incident occurred; and • An explanation of how the incident occurred.	Worker's Compensation Department	Five years following the end of the calendar year that these records cover.

11.0 Program Evaluation

EHS shall conduct an annual review of this plan and its effectiveness, and will update the plan as determined to be necessary.

Appendix A: Definitions

Blood: Human blood, human blood components, and products made from human blood.

Bloodborne Pathogens: Pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, HBV and HIV.

Contaminated: The presence or the reasonably anticipated presence of blood or OPIM on an item or surface.

Contaminated Laundry: Laundry which has been soiled with blood or OPIM or may contain sharps.

Contaminated Sharps: Any contaminated object that can penetrate the skin, including but not limited to, needles, scalpels, broken glass, and broken capillary tubes.

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.

Engineering controls: Controls that isolate or remove the bloodborne pathogen hazard from the workplace (e.g., sharps disposal containers, self-sheathing needles, and needleless systems).

Exposure incident: A specific eye, mouth, or other mucous membrane, non-intact skin, or parenteral contact with blood or OPIM that results from the performance of an employee's duties.

Handwashing facilities: A facility providing an adequate supply of running potable water, soap, and single-use towels or air-drying machines.

Licensed healthcare professional: A person whose legally-permitted scope of practice allows him or her to independently perform the activities required by this program.

Other Potentially Infectious Materials (OPIM): 1) The following fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, amniotic fluid, 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.

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

Percutaneous: Through the skin.

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 PPE.

Regulated waste: Liquid or semi-liquid blood or OPIM; contaminated items that would release blood or OPIM in a liquid or semi-liquid state if compressed; items that are caked with dried blood or OPIM and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or OPIM.

Research laboratory: A laboratory producing or using research laboratory-scale amounts of HIV or HBV. Research laboratories may produce high concentrations of HIV or HBV but not in the volume found in production facilities.

Sharps with engineered sharps injury protections: A non-needle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medication or other fluids, with a built-in safety feature or mechanism that effectively reduces the risk of an exposure incident.

Source individual: Any individual, living or dead, whose blood or OPIM 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; human remains; and individuals who donate or sell blood or blood components.

Sterilize: The use of a physical or chemical procedure to destroy all microbial life including highly-resistant bacterial endospores.

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.

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).