



# Exposure Control Plan

Frostburg State University  
Exposure Control Plan  
Revised: 6/01, 4/04, 3/07, 7/08

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## PURPOSE

To provide a uniform policy for the protection of Frostburg State University (FSU) personnel who, as part of their jobs, face reasonably anticipated exposure to bloodborne pathogens.

## POLICY

FSU is committed to providing a safe and healthful work environment for our entire staff. In pursuit of this endeavor, this exposure control plan (ECP) is provided to eliminate or minimize occupational exposure to bloodborne pathogens in accordance with OSHA standard 29 CFR 1910.1030, Occupational Exposure to Bloodborne Pathogens.

Under the OSHA rule, blood means human blood, blood products, or blood components. Other potentially infectious materials include human body fluids such as saliva in dental procedures; semen; vaginal secretions; cerebrospinal, synovial, pleural, pericardial, peritoneal, and amniotic fluids; any body fluids visibly contaminated with blood; unfixed human tissues or organs; HIV-containing cell or tissue cultures; HIV- or HBV-containing culture mediums or other solutions; and all body fluids in situations where it is difficult or impossible to differentiate between body fluids.

The ECP is a key document in implementing and ensuring compliance with the standard, thereby protecting our employees. This ECP includes:

- Program administration responsibilities
- Determination of employee exposure
- Implementation of various methods of exposure control, including:
  - Universal precautions
  - Engineering and work practice controls
  - Personal protective equipment
  - Labels
  - Housekeeping
- Hepatitis B vaccination
- Post-exposure evaluation and follow-up
- Communication of hazards to employees and employee training
- Recordkeeping
- Procedures for evaluating circumstances surrounding an exposure incident

The methods of implementation of these elements of the standard are discussed in the subsequent pages of this ECP.

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## PROGRAM ADMINISTRATION

The Director of Human Resources is responsible for the implementation of the ECP.

The Safety Officer shall:

- Prepare and distribute the ECP.
- Annually review the ECP for effectiveness and update as necessary. The review and update will reflect changes in technology that eliminate or reduce exposure to bloodborne pathogens and whenever necessary include new or modified tasks and procedures.
- Provide or coordinate training for all affected workers concerning occupational transmission of bloodborne pathogens, as required in the standard.
- Maintain training records.
- Assist departments in identifying employee job classifications in which occupational exposure to human blood may occur.
- Coordinate disposal of regulated waste.
- Ensure that appropriate employee health and OSHA records are maintained.
- Assure immediate medical evaluation is completed at Western Maryland Health Systems.
- Assure counseling and follow-up evaluations are provided post-exposure.
- Investigate exposure incidents.
- Make the written ECP available to employees, OSHA, and NIOSH representatives.
- Provide assistance to any department requesting guidance or training to satisfy implementation of this policy.

The Safety Officer can be contacted at x4897 or on the 3<sup>rd</sup> floor of the Hitchins Administration Building.

The Brady Health Center staff shall:

- Provide pre-exposure vaccinations for Hepatitis B and maintain that record.
- Assure that all medical actions required are performed post-exposure.
- Control and maintain medical records that are provided.
- Maintain and provide University Police with a current list of employees and their Hepatitis B vaccine status.
- Maintain health center confidential sharp injury log.
- Document in the ECP the evaluation by non-managerial personnel of various medical devices with built-in safety features.
- Assure special medical waste removal contractor is certified through the Maryland Department of Environment and that certificate is on file.

The Director of Housekeeping Services shall:

- Assure that disinfectants are EPA approved and registered. Appropriate disinfectants include: diluted bleach 1:10-1:100 mixed daily, EPA-registered tuberculocides (list B), EPA-registered sterilants (list A), and products registered by EPA against HIV/HBV (list D).

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Lists of EPA registered products are available at [www.epa.gov/oppad001/chemregindex.htm](http://www.epa.gov/oppad001/chemregindex.htm).

The affected Department Chairs/Directors shall:

- Provide, at no cost to employee, all supplies, personal protective equipment (PPE), and vaccinations necessary for compliance with this ECP.
- Ensure that the ECP is accessible to all employees in the worksite and that the employees comply with the requirements of the Plan.
- Provide specific work practice training and maintain copies of those training records.
- Solicit input from non-managerial employees who are responsible for direct patient care in the identification, evaluation, and selection of effective engineering and work practice controls and document the solicitation in the ECP.
- Ensure that in the case of an exposure incident Western Maryland Health Systems receives a copy of OSHA's bloodborne pathogen standard, the BBP Occupational Exposure Evaluation Form, and the Hepatitis B vaccine status information.

The University Police shall:

- Maintain the confidential list of employee Hepatitis B vaccine status for access by department chairs/directors in case of an exposure.

FSU employees with occupational exposure to human blood or OPIM shall:

- Adhere to the requirements of the ECP.
- Complete all safety-training requirements and comply with documentation procedures.
- Report all suspected exposure incidents.

## **EMPLOYEE EXPOSURE DETERMINATION**

Category 1: The following is a list of all job classifications at FSU in which all employees have potential occupational exposure:

Job Title	Department/Location
Housekeeper Plumber Groundskeeper Garbage Collector	Physical Plant/Stangle Building
Registered Nurse Nurse Practitioner Physician	Health Services/Brady Health Center
University Police Officer I, II, III, IV, Chief	University Police Building
Director Assistant Director	University Children's Center
Athletic Equipment Specialist Athletic Trainer Assistant Athletic Trainer	Athletics/Cordts P.E. Center

Category 2: The following is a list of all job classifications at FSU in which some employees have potential occupational exposure, with tasks and procedures in which occupational exposure occurs.

Job Title	Department/Location	Task for Category
Activities for Life Director	Athletics / P.E. Center	Occasionally responsible for life guarding
Auto Mechanic Vehicle Operator	Physical Plant/Stangle Building	Occasionally responsible for garbage collection

## METHODS OF IMPLEMENTATION AND CONTROL

### Universal Precautions

All employees will utilize universal precautions. Universal precautions refers to an infection control method by which ALL human blood and other potentially infectious materials are treated as if they were known to be infectious for HIV, HBV, and other bloodborne pathogens. Universal precautions are intended to prevent occupational exposure to human blood. The routes of transmission for occupational exposure are 1) contact with broken skin; 2) splash to mucous membranes of the eye, nose, or mouth; or 3) puncture of the skin with a sharp object. Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious materials.

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Universal precautions shall include the following practices:

- Gloves MUST be worn when touching potentially infectious materials and for handling items or surfaces soiled with such materials. Gloves MUST be changed or removed immediately after each use. Masks or protective eyewear MUST be worn during procedures that are likely to generate droplets of potentially infectious materials to prevent exposure of mucous membranes of mouth, nose, and eyes. Protective suits, gowns, or aprons MUST be worn during procedures that are likely to generate splashing of potentially infectious materials.
- When hands are visibly dirty or contaminated with proteinaceous material or visibly soiled with blood or body fluid, wash immediately with either a non-antimicrobial soap and water or an antimicrobial soap and water. If hands are not visibly soiled, use of an alcohol-based hand rub for routinely decontaminating hands is acceptable (OSHA 3/31/2003 Letter of interpretation).
- When gloves are used, hands MUST be washed after gloves are removed.
- Employees MUST take precautions to prevent injuries caused by needles, scalpels, razors, and other sharp devices. These items must be carefully handled and disposed of properly.
- To minimize or eliminate skin-to-skin contact during emergency mouth-to-mouth resuscitation, barrier devices should be made available to those employees responsible for administration of first aid and CPR.
- Healthcare workers or first aid providers who have exudative lesions or weeping dermatitis MUST wear gloves when contacting patients or when handling health-care equipment.
- Employees must not eat, drink, apply cosmetics, or handle contact lenses in work areas where there is a reasonable likelihood of exposure to potentially infectious materials. Food and beverages are not to be kept in refrigerators, freezers, or cabinets, or on countertops or shelves where blood or other potentially infectious materials are suspected to be present.

### **Exposure Control Plan**

Employees covered by the bloodborne pathogens standard receive an explanation of this ECP during their initial training session. It will also be reviewed in the employees' annual refresher training. All employees have an opportunity to review this plan at any time during their work shifts by contacting the Safety Officer. If requested, a copy of the ECP will be provided free of charge and within 15 days of the request.

### **Engineering Controls and Work Practices**

Engineering controls and work practice controls will be used to prevent or minimize exposure to bloodborne pathogens. The specific engineering controls and work practice controls used are listed below.

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**Grounds:** Discarded potentially infectious materials may be infrequently found on University grounds. Such materials include, but are not limited to, sharps (razor, needle, broken glass, etc.), bandages, condoms, or other substances or objects that the employee may have reason to believe may be potentially infectious.

- Employees shall handle potentially infectious items with tongs.
- Sharps must be placed into a sharp container. Sharp containers can be obtained by calling University Police (x4223) or Brady Health Center (x4310). Broken glass must never be picked up by hand. Broken glass must be removed using a dustpan and broom and then placed in a sharp container or a labeled, leak proof, and puncture-resistant container.
- Other potentially infectious items shall be placed into a red biohazard disposal bag. The bag is then to be transported to the closest disposal site – Lane Center, Westminster Hall, or Brady Health Center.
- If it is necessary for an employee to physically handle the material, protective gloves must be worn. After the item is placed in the biohazard bag, the disposable gloves must be removed in a manner that prevents employee skin contact with the outside surface of the gloves. Gloves must be immediately placed into the biohazard bag after removal. Hands must be washed as soon as possible with soap and water.

**Contaminated Surfaces:** It is not unusual to find surfaces that appear to be contaminated with potentially infectious materials. Precautions must be taken by employees to prevent exposure to bloodborne pathogen during cleanup and disinfection of surfaces. The task and the anticipated exposure should determine the level of personal protective equipment.

- Broken glass must be recovered using a dustpan and broom and then placed in a sharp container or a labeled, leak proof, and puncture-resistant container.
- All contaminated surfaces will be disinfected using the approved germicidal following manufacturer's instructions. Appropriate disinfectants include; diluted bleach 1:10-1:100 mixed daily, EPA-registered tuberculocides (list B), EPA-registered sterilants (list A), and products registered by EPA against HIV/HBV (list D). Manufacturer's guidelines are always followed with emphasis on contact time.
- Employees must wear gloves when cleaning up small spills of potentially infectious materials. Goggles should be worn if splashing might occur, especially if a scrubbing device (e.g. scrubbing pad) is used to clean the contaminated surface. The recommended cleaning method is to spread paper towels over the contaminated surface and liberally apply the disinfectant to the contaminated surface with a spray bottle adjusted to deliver a fine mist. The disinfectant should remain in contact with the spilled material for the time period specified by the manufacturer before continuing with decontamination procedures. When diluted beach is used, it must air dry to be effective. Pick up the paper towels, and wipe the surface with disinfectant-dampened paper towels until all visible traces of the contaminate are removed. Re-wipe the surface with clean paper towels and disinfectant and allow surface to dry. Place cleanup materials that have touched the contaminated surface, including disposable gloves, into a biohazard disposal bag and place in the correct labeled container for disposal.
- Larger spills usually require a more strenuous method of cleanup. Employees must wear goggles in addition to gloves if there is a likelihood of splashing. If there is a chance of contamination of clothes, a fluid-resistant gown/apron must be worn. All disposable clothing will be handled and disposed as biohazardous waste.

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- Contaminated objects must either be handled as infectious waste or decontaminated with germicide. If decontaminating, a germicide should be applied to the contaminated object, ensuring its complete contact with the contaminant. Any device used for decontamination activities that comes into contact with the contaminated surface (e.g. rags, mop heads, etc.) must either be disposed of as biohazardous waste or decontaminated with germicide. Following disinfecting, reusable equipment may be handled as noninfectious.

**Housekeeping in Bathrooms and Residence Halls:** The daily routine cleanup and disinfection of bathrooms and residence halls are not considered activities that fall under the requirements of the BBP Standard. It is recognized, however, that there is likelihood for the presence of infectious agents that are responsible for commonly occurring diseases.

- Application of germicide is commonly used as a method to reduce the occurrences of common diseases. Germicides are approved by the University and manufacturer's directions must be followed. See above note on disinfectants and germicides.
- Employees responsible for handling and disposal of broken glass are not required to treat the material as bloodborne pathogen unless it is visibly contaminated with potentially infectious material. Broken glass is not handled but removed using a dustpan and broom. If an employee must handle broken glassware (such as broken glass still present in a window or door), thick protective gloves must be worn to prevent a sharp injury. A dustpan and broom must be used to remove the broken glass on a surface and then placed in a sharp container or a labeled, leak proof, and puncture-resistant container.
- If an employee finds potentially infectious materials in a bathroom (blood spills, bandages, contaminated razors, broken glass, discarded feminine hygiene products, used condoms, etc.), cleanup and decontamination should proceed according to the procedures of decontamination of surfaces.
- Disposable razors are routinely discarded in residential bathroom facilities. Employees who are responsible for housekeeping tasks in these areas may carefully handle and discard these razors into the general trash containers unless they are visibly contaminated with potentially infectious material or damaged in such a manner that the razor blade is exposed. In these situations, workers must wear appropriate gloves and carefully place the razor into an appropriate sharp container. If a razor cannot be easily handled, the employee shall handle the item in a remote manner (e.g. using tongs or tweezers).
- If feminine hygiene products have been placed into the regular waste receptacle and the receptacle is lined with a plastic bag, the bag may be removed and disposed as regular trash. Employees shall utilize gloves when removing and handling the trash bag. Dedicated receptacles for disposal of feminine hygiene products concentrate the presence of potentially infectious materials, and may cause the generation of free liquid that presents a greater hazard to employees. These receptacles should be lined with disposable plastic bags. Employees must utilize gloves for removal of these materials and decontamination of the container.

**Plumbing:** Employees involved with drain plumbing activities have an increased opportunity for exposure to bloodborne pathogens. Potentially infectious materials could be introduced into the sanitary piping system, and care must be taken to avoid exposure. Most of the body fluids directed into the sanitary system are not regulated under the BBP Standard. It is recognized, however, that

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several diseases are associated with exposure to sewage, and employees will receive equipment to prevent contact with this type of material.

- Prior to maintenance of drain piping, employees shall, if possible, flush piping with excess water (hot water if applicable) to lessen the risk from potentially infectious BBP from areas of repairs. During disassembly, employees must wear appropriate gloves before breaking into the drain system.
- If drain traps are removed, they must be carefully disassembled and the contents inspected for potentially infectious material and sharps. Any suspect materials (needles, razors, broken glass, feminine hygiene products, bandages, etc.) shall be immediately placed into sharp container or biohazard disposal bag as applicable. Items that must be handled are to be done so in a remote manner (e.g. using tongs or tweezers) and wearing thick protective gloves.
- Biohazard disposable bags will be placed in a hazardous waste collection container at one of the following locations: Brady Health Center, Lane Center, or Westminster Hall. Sharp containers are available at Brady Health Center or by calling University Police.
- If there is a chance of splashing, a full-face shield and disposable uniform should be worn in addition to gloves. When working with an overhead pipe, a disposable uniform and full-face shield is required to protect the eyes, mouth, and skin.

**Sewage Cleanup:** The cleanup and disinfection of areas that have been flooded with sewage is not considered an activity that falls under the requirements of the BBP Standard. It is recognized, however, that employee exposure to raw sewage can cause illness.

- Any employee involved with sewage cleanup must wear appropriate gloves. Utility gloves are appropriate for this purpose. If cleanup activities will cause splashing, employees will wear appropriate face shields or goggles.
- If the sewage spill is greater than 1/8", waterproof boots will be provided for employees who will work in the overflow area.
- Sewage materials shall be removed from floors and other surfaces with wet-vacuums, brooms, squeegees, etc and shall be redirected into a properly functioning sanitary drain. Papers, books and other items that have been saturated with sewage may be placed into regular trash receptacles for disposal.
- Employees shall be watchful for recognizable potentially infectious materials such as bandages, feminine hygiene products, sharps, etc. These products shall be carefully lifted from the spill area and placed into the appropriate container, biohazard disposal bag or sharp container, for ultimate disposal in a hazardous waste receptacle.
- Following removal of the gross sewage materials, employees shall apply an appropriate germicide to all surfaces that were contacted. Manufacturer's directions will be followed. Hard surfaces shall be wiped clean and left to dry following application of the germicide.
- If the spill is large, and sufficient quantities of germicide are not readily available, it is acceptable to utilize a 5% bleach solution for disinfecting. Bleach products may cause damage to eyes and bare skin and property, and should be used only as a last resort.
- Employees shall attempt removal of sewage materials from soft or porous surfaces (carpet, etc.) utilizing wet-vacuums, carpet cleaners, etc. An appropriate germicide should then be applied to these surfaces and allowed to air-dry.

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- All reusable equipment will be disinfected with germicide prior to removal from the site.
  - After removal of protective equipment, employees must immediately wash their hands with soap and water.

**Children's Center:** Employees who are required to provide first-aid or CPR as a function of their job must have protective equipment available in the event that an emergency response is dictated.

- Employees who are required to administer CPR shall have a resuscitation mask available for use. The mask is a barrier-device to protect the employee from direct oral contact.
- Appropriate gloves shall be worn during emergency response activity.
- Biohazard disposal bags shall be used to dispose of contaminated mask and gloves. The biohazard disposal bag is transported to Brady Health Center for appropriate disposal.
- After removal of gloves, employees must immediately wash their hands with soap and water.

**Handling and Storage of Medical Waste:** Implementation of the BBP Standard calls for proper handling and storage of medical waste. Three primary types of medical waste containers are provided to employees.

- The sharp container is constructed of puncture-resistant material and is designed for disposal of needles, scalpels, razors, broken glass, etc. Sharp containers should only be opened when sharps are being placed inside. Sharp containers are only two-thirds filled. Sharp containers are brought only to Brady Health Center for disposal. Sharp containers are inspected and maintained or replaced by QI/Risk Manager (Brady Health Center), Athletic Trainer (Athletics), or Supervisor of Operations (University Police) every month or whenever necessary to prevent overfilling.
- The biohazard disposal bag is a red fluid-resistant bag with the universal biohazard symbol. Biohazard disposal bags may be transported by employees between uses, but should be protected from inadvertent damage. Bags must be closed during transport by means of twist-ties. Employees shall never try to "squeeze" air from the bag to reduce its size prior to disposal.
- The third medical waste container is the medical waste collection containers for consolidation of biohazardous waste. These collection containers are secured at the Brady Health Center, Lane Center, and Westminster Hall. Employees can bring biohazard bags to these locations for consolidation into the larger medical waste container. These central containers have external support (labeled cardboard boxes) for added strength. The external box is labeled with the universal biohazard symbol. A heavy-duty plastic red leak proof bag is secured in the box. The large medical waste boxes are never overfilled. When full, the red bag is tied closed and the lid to the box is closed. Brady Health Center staff is responsible for assuring the container is closed when filled by checking at least weekly. The night shift housekeeping supervisor is responsible for assuring the container is checked weekly and not overfilled. A contracted licensed medical waste removal company removes the closed containers at least monthly. Brady Health Center staff will notify the contractor when additional stops are needed.

**Laundering of Contaminated Clothing:** Athletics is the only department that has responsibility for laundering of potentially infected clothing. All athletic uniforms are treated as if contaminated, as

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the potential exists. The Athletic Equipment Specialist is responsible for handling and laundering of uniforms in the Cordts P.E. Center.

- All uniforms are placed in the designated plastic bin, which is used to collect and transport uniforms to the laundry area.
- Gloves are worn when handling the uniforms.
- Eye protection shall be used when splashing of the eye may occur.
- Contaminated clothing is washed with detergent and water.
- The plastic collection bin is examined after each use and cleaned with a germicide as needed.
- Gloves contaminated with potentially infected material will be properly disposed of in a red biohazard disposal bag. After removal of gloves, the employee must wash hands with soap and water.

Employees clothing or uniforms that are contaminated on the job should be removed as soon as possible. Wash the skin beneath. The contaminated clothing will be laundered by the individual on campus at the Stangle Building or the Cordts P.E. Center.

**Athletic Trainers:** In the athletic environment, universal precautions must be considered during the immediate control of bleeding and when handling bloody dressings, mouth guards and other articles containing body fluid.

- The use of gloves for the examination, cleaning, and dressing of wounds is required. Other personal protective equipment such as goggles, masks, and gowns may be appropriate if there is a possibility of splashing of potentially infectious materials. Disposable gloves must be immediately placed into a biohazard bag after each use when contaminated.
- Extreme care must be exercised when handling sharp objects such as scissors or scalpels. Needles are not used by Athletic Trainers but may be used by the medical physician. Needles are never recapped, bent, broken, or otherwise manipulated by hand. Disposable sharps must be immediately placed into a puncture-resistant sharp container after use.
- Athletic personnel with exudative lesions, open wounds, or weeping dermatitis should refrain from all direct contact in situations where they may come into contact with potentially infected materials.
- The use of common water bottles is discouraged, but if used athletes are encouraged to avoid mouth-to-bottle contact. Although transmission of HIV in saliva is extremely unlikely, dental or oral injuries will greatly increase the possibility of the presence of an infectious material.
- Contaminated surfaces and equipment must be decontaminated and disinfected using an approved germicidal. Always follow manufacturer's instruction for use.

**Emergency Response Activities:** Members of the University Police Department respond and/or have contact with emergency medical incidents in which they may be required to treat the ill and injured. These activities may include, but are not limited to, controlling bleeding, applying bandages and dressings, airway control, and CPR. Additionally, officers may have contact with contaminated body fluids as part of a crime scene, arrest situation, or evidence/property retrieval. Personnel shall follow all provisions of Police Special Order No. 23 dated May 22, 1998.

- All uniformed officers have been issued latex gloves and CPR micro shields. These items are worn on the duty belt and available at all times. The gloves are inspected daily and replaced

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by individual offers as needed. Gloves shall be worn during all medical incidents and search procedures.

- A protective equipment kit and sharp disposal container is kept in each University Police vehicle. The kit includes gloves, goggles, gown, and hazardous waste disposal bag.
- Contaminated evidence is ultimately placed in a biohazard bag and placed in other containers for storage or transport to another agency for analysis.
- Contaminated handcuffs will be cleansed with the approved germicide prior to placing back in service.
- The officer will clean a University Police vehicle that is contaminated, if possible. If unable to clean due to time or the size of the contaminated area, the vehicle will be taken out of service until Housekeeping is able to clean the contaminated area. Follow policies and procedures related to clean up of contaminated surfaces.
- Each officer will keep a spare uniform (shirt and pants) in his/her locker. In cases where the uniform is contaminated, the uniform must not be worn home. The officer will wash the uniform on campus in the Stangle Building.
- Brass or ornamental uniform items exposed to blood or other bodily fluid will be cleaned with a 5% bleach solution.

**Garbage Collection:** The routine garbage removal from campus halls and offices is not considered an activity that falls under the requirements of the BBP Standard. It is recognized, however, that sharps placed in the regular garbage can be a source of a puncture wound and potential exposure to a bloodborne pathogen.

- Heavy gloves will be worn when removing trash.
- Eye protection shall be used when splashing of the eye may occur.
- Garbage bags will be carried away from the body at all times.
- The one-hand technique should be used but when necessary caution must be used when placing the second hand on the bottom of the bag.
- Although red biohazard disposal bags are not placed with regular garbage, staff must report any deviation from this to the building supervisor and never dispose of the red bags with the regular trash.

**Healthcare Services:** Members of the Brady Health Center staff have a daily risk of exposure to blood and other potentially infectious material. The tasks that put them at greatest risk are the use of sharps (i.e. venipunctures, injections, suture removal).

- Staff shall follow all provisions of these procedures as well as those established in the Brady Health Center Policy and Procedure Manual, Infection Control Policies.
- Used needles are never recapped, bent, broken, or otherwise manipulated by hand. Scalpels and needles are placed in a sharp container in the room in which they are used. Sharps with engineered sharps injury protection will be utilized as much as possible. BD safety guide needles with protective device, Vanishpoint retractable syringe and needle, and NMT retractable syringe and needle are utilized at the health center. Miltex safety scalpels with retractable stainless steel blades also are used. Sharp containers are in each patient care area. Needle holders are disposed of with needle attached after venipuncture.

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- As safer medical devices are available, health center staff will actively pursue their evaluation and use. All non-managerial clinical care staff (Registered Nurses and Nurse Practitioners) and managerial staff are involved in the evaluation of safer medical devices.
  - Blood and other body fluid specimens are placed in the specimen collection bag that displays the universal biohazardous waste symbol. The specimens are secured in the bag in the room in which it was collected. Refrigerated specimens are placed in the refrigerator that is marked hazardous waste.
  - Specimens are transported to the State laboratory at the Allegany County Health Department. The specimens are transported in a puncture-proof, leak proof container and then placed in a red bag with the biohazardous waste symbol on the bag.
  - There is no mouth pipetting of serum specimens.
  - A sealed cap to prevent aerosol formation and splashing must cover specimens placed in a centrifuge.
  - Non-disposable instruments are used in rare instances. With gloves on, the instruments are washed with soap and water and air-dried. The instruments are then placed in a leak proof, puncture-proof transport container that is marked with the universal biohazard symbol. The instruments are then transported to Western Maryland Health Systems for gas sterilization. Upon return the instruments are inspected for expiration dates, closed packaging, and activation of the sterilization indicator tape. The packaging is checked monthly to assure it is intact.
  - Personal protective equipment is readily available in all patient care areas. The level of protection required is determined by the task being performed. In cases where the clothing is contaminated, the clothing must not be worn home. The clothing is washed by the employee at the health center.
  - The cubical curtain will be washed as needed, but at least every semester.
  - Contaminated surfaces and equipment are decontaminated immediately using an approved germicidal. Exam tables and services are cleansed at least daily and as needed using the approved disinfectants. Manufacturer's instructions are followed.
  - Protective coverings on light sources must be replaced when contaminated.
  - Medical waste pails are lined with red bags. They are inspected when bags are changed to assure no leakage or contamination has occurred.
  - When immunization clinics that are held other than at the health center, alternative hand washing methods must be employed. Liquid hand sanitizer will be given to each staff member to be used when soap and water are not readily available.

**Additional information:** FSU identifies the need for changes in engineering control and work practices through review of current OSHA and MOSH information and records, employee interviews, accident reviews, committee activities, professional magazines and safety newsletters, listservs, etc. FSU will evaluate new procedures or products by gathering data, networking with professional colleagues including those in the University System of Maryland, meeting with sales representatives, sampling products, trial and error, and team evaluation process. Each department involved in evaluating new products or procedures will have not only supervisory representative but also staff who are directly impacted by the new product. The Safety Officer will ensure effective implementation of these recommendations.

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## Personal Protective Equipment (PPE)

Personal Protective Equipment is provided at no cost to employees by their respective departments. PPE training is the responsibility of the Safety Officer with assistance from the trade supervisor. Training also is provided during the annual bloodborne pathogen workshop, which includes the use of the appropriate PPE for the tasks or procedure employees will perform. PPE is available to employees through their supervisor.

Types of PPE available to employees are as follows:

- **Gloves:** Gloves are worn when there is a possibility for direct hand contact with human blood or OPIM. Several types of gloves are available, and selection should be based upon the job being performed.
  - Thin latex gloves are used for operations involving delicate manipulations. These gloves are designed to fit tightly against the skin. The proper size should be selected to fit the worker's hands. Latex gloves are either powdered or powder-free. If an employee has a skin reaction from the gloves, hypoallergenic and or powder-free types must be provided. Non-latex gloves are available at Brady Health Center and the Housekeeping Department. All such gloves are disposable and are not to be reused.
  - Polyvinyl chloride (PVC) gloves are disposable and should not be reused. They do not fit tightly against the skin and should not be used for activities requiring delicate manipulations. PVC gloves may be powdered or powder-free. PVC gloves are not recommended for work with human blood or other potentially infectious material because they do not always provide a leak proof barrier.
  - Rubber, neoprene, or other thicker reusable gloves are more durable and are generally used for more strenuous activities. They may be reused if properly decontaminated following contact with potentially infectious materials. Reusable gloves should be periodically inspected and discarded if any cracks, holes, or breaks in the material are found.
- **Eyewear:** Goggles with solid side shields or chin-length face shields must be worn when there is a risk of splashing or aerosolizing of human blood or other potentially infectious material. This protective equipment reduces the potential for contact with the mucous membranes of the eyes.
- **Masks:** The use of protective masks is intended to reduce the risk of human blood or OPIM contacting the mucous membranes of the nose, mouth, or respiratory tract. Masks are disposable; they must be removed immediately following use and not be reused.
- **Clothing:** Protective clothing must be worn when there is a risk of human blood or OPIM spattering or becoming aerosolized and contacting a worker's skin or clothing. Various types of suits and gowns are available for this purpose. The type of protective clothing selected will depend upon the task and degree of exposure anticipated. Protective clothing should be resistant to fluids and is disposable. Non-disposable lab jackets are not considered a personal protective device.
- **Barrier Device for CPR:** Personnel who perform CPR should have resuscitation masks on hand for use in an emergency. Most resuscitation masks are disposable and should be handled as contaminated waste following use. The resuscitation mask allows for effective

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CPR without mouth-to-mouth contact. The masks are fitted with a one-way valve that prevents the flow of materials from victim to rescuer.

All employees using PPE must observe the following precautions:

- Wash hands immediately or as soon as feasible after removal of gloves or other PPE.
- Remove PPE after it becomes contaminated, and before leaving the work area.
- Used PPE are disposed of in a red biohazard waste bag. Reusable items such as goggles are cleansed with the University-approved germicide when removed. It is the discretion of the user if an item has been compromised and needs to be discarded in the red biohazard bag. Once a reusable item has been decontaminated, it is considered not contaminated and can be placed back in service.
- Wear appropriate gloves when it can be reasonably anticipated that there may be hand contact with blood or OPIM, and when handling or touching contaminated items or surfaces. Replace gloves if torn, punctured, or contaminated, or if their ability to function as a barrier is compromised.
- Utility gloves may be decontaminated for reuse if their integrity is not compromised. Discard utility gloves if they show signs of cracking, peeling, tearing, punctures, or deterioration.
- Never wash or decontaminate disposable gloves for reuse.
- Wear appropriate face and eye protection when splashes, sprays, spatters, or droplets of blood or OPIM pose a hazard to the eyes, nose, or mouth.
- Remove immediately or as soon as feasible any garment contaminated by blood or OPIM, in such a way as to avoid contact with the outer surface.

### Labels

Warning labels, which are predominately fluorescent orange, orange-red, or red with black labeling, shall have the following symbol:



Warning labels shall be attached to:

- All medical waste containers and all sharp containers;
- Refrigerators where human blood or OPIM are stored;
- Containers used to store and transport human blood or OPIM;
- Equipment that has been contaminated with human blood or OPIM if not decontaminated immediately.

**Employees are to notify the Safety Officer if they find regulated waste containers, refrigerators containing blood or OPIM, contaminated equipment, etc. without proper labels.** The only exceptions to this labeling requirement are red bags or red containers, which are universal symbols of regulated waste.

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## HEPATITIS B VACCINATION

FSU provides the Hepatitis B vaccination (HBV) series to all employees who have occupational exposure to human blood or other potentially infectious body fluids. The series is provided at no cost to employees, made available at a reasonable time and place, and administered according to the recommendation of the U.S. Public Health Service. The Quality Improvement Coordinator or Health Educator at Brady Health Center will provide training to employees on Hepatitis B vaccinations, addressing the safety, benefits, efficacy, methods of administration, and availability.

The Hepatitis B vaccination series is available after training and within 10 days of initial assignment to employees identified in the exposure determination section of this plan. The Safety Officer is responsible to assure that new hires are trained and offered the Hepatitis B vaccine within the 10 days. Vaccination is encouraged unless 1) documentation exists that the employee has previously received the series, 2) antibody testing reveals that the employee is immune, or 3) medical evaluation shows that vaccination is contraindicated.

Employees are under no obligation to receive the vaccination series; however any employee who chooses to decline vaccination must sign a declination form. If an employee decides at a later date to receive the vaccination series, and still has occupational exposure to human blood or OPIM, FSU will provide the vaccinations in accordance with this section. Documentation of refusal of the vaccination is maintained in the Safety Office. Employees are reminded at the annual refresher that they may still receive the vaccination if they initially declined.

Brady Health Center staff will administer the Hepatitis B vaccinations. A Vaccine Information Sheet will be given and explained to employee. Consent will be signed. The employee is required to wait at the health center for twenty minutes after the injection. The employee will be notified by mail when the next injection is due.

The Brady Health Center staff, prior to administering the vaccine, determines if the employee has previously received the series, had antibody testing that reveals the employee is immune, or has a medical contraindication to the vaccine. Brady Health Center will notify the Safety Officer in writing of their professional opinion if this occurs. If any question arises, the employee's personal physician will be contacted for an opinion.

Blood serum HB antibody titers will be offered to those employees meeting the current CDC guidelines. The CDC recommends that employees who have ongoing contact with patients or blood and are at ongoing risk for injuries with sharp instruments or needle sticks be tested for antibody to Hepatitis B surface antigen one or two months after completion of the three-dose vaccination series. Health services staff qualifies under the CDC guidelines for antibody titers. An accredited laboratory will be used for antibody testing.

If the U.S. Public Health Service recommends routine booster dose(s) of Hepatitis B vaccine at a future date, such booster dose(s) shall be made available to staff.

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## POST-EXPOSURE EVALUATION AND FOLLOW-UP

OSHA defines an exposure as "a specific eye, mouth, or other mucous membrane, non-intact skin, or parenteral contact with blood or OPIM that may result from the performance of an employee's duties."

Immediate treatment for an exposure:

- **Skin:** wash the affected area with soap and water immediately or as soon as possible
- **Eyes or mucous membranes:** immediately flush the affected areas with water 15-20 minutes
- **Intact skin that sustains a contaminated sharp injury:** immediately wash the affected area with soap and water

After immediate treatment, the exposure must be reported promptly to the supervisor, who shall ensure that a medical evaluation is IMMEDIATELY made available to the employee. The employee's supervisor is responsible for initiating the investigation by notifying the Safety Officer. The supervisor, from information obtained from the employee, will initiate a BBP Occupational Exposure Evaluation.

Immediate medical evaluation is not available on campus. The employee is to be transported to a Western Maryland Health Systems campus for evaluation. The emergency rooms at both Braddock Hospital and Memorial Hospital are open 24/7.

Following the initial first aid, the following activities will be performed:

- Complete the BBP Occupational Exposure Evaluation form. This form includes the injury demographics (route of exposure and circumstances), type of exposure, and identification of source individual (if known). A copy of the completed Occupational Exposure form is maintained in the Safety Officer and a copy is forwarded to the Brady Health Center for follow-up.
- The employee's supervisor ensures that the healthcare professional evaluating an employee with an exposure incident receives the following:
  - a copy of OSHA's bloodborne pathogens standard
  - BBP Occupational Exposure Evaluation Form
  - Hepatitis B vaccine status
  - Report of evaluation by Medical Consultant

The University Police and Brady Health Center maintain copies of the above.

- If an employee refuses the medical evaluation, the supervisor must document the circumstances and report the event to the Safety Officer. The employee will be encouraged to have a medical examination.

A Nurse Practitioner at Brady Health Center shall follow up on referrals to Western Maryland Health Systems. Brady Health Center will receive and provide the employee with a copy of the evaluating healthcare professional's written opinion within 15 days after completion of the evaluation.

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The healthcare professional's written opinion for post-exposure evaluation and follow-up will be limited to the following information:

- That the employee has been informed of the results of the evaluation.
- Hepatitis B vaccination will be limited to whether HBV vaccination is indicated for an employee and if the employee has received such vaccination.
- That the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials with require further evaluation or treatment.

All other findings or diagnoses will remain confidential and shall not be included in the written report

Counseling services will be offered to the employee per Office of Human Resources guidelines.

## **PROCEDURES FOR EVALUATING THE CIRCUMSTANCES SURROUNDING AN EXPOSURE INCIDENT**

The Safety Officer will review the circumstances of all exposure incidents to determine:

- engineering controls in use
- work practices followed
- a description of the device being used
- protective equipment or clothing that was used (gloves, eye shields, etc.)
- location of the incident
- procedure being performed when the incident occurred
- employee's training

If it is determined that revisions need to be made, the Safety Officer will ensure that appropriate changes are made to this ECP. Changes may include, but not be limited to, an evaluation of safer devices, adding employees to the exposure determination list, etc.

## **EMPLOYEE TRAINING**

All employees who have potential occupational exposure to human blood or other potentially infectious material must participate in a training program provided at no cost to the employee. Training will be provided within ten days of initial assignment to jobs where potential occupational exposure may occur and at least annually thereafter. The Office of Human Resources will provide initial information and the department supervisor will assure training is completed within ten days. FSU will provide additional training when changes such as modification of tasks or procedures or institution of new tasks or procedures affect the employee's occupational exposure. The training will be coordinated through the Safety Office and conducted by QI Coordinator or Health Educator at Brady Health Center.

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All employees who have potential occupational exposure to bloodborne pathogens receive training on the epidemiology, symptoms, and transmission of bloodborne pathogen diseases. In addition, the training program covers, at a minimum, the following elements:

- explanation of the standard and how to access a copy
- explanation of our ECP and how to obtain a copy
- explanation of methods to recognize tasks and other activities that may involve exposure to blood and OPIM, including what constitutes an exposure incident
- explanation of the use and limitations of engineering controls, work practices, and PPE
- explanation of the types, uses, location, removal, handling, decontamination, and disposal of PPE
- explanation of the basis for PPE selection
- information on the Hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine will be offered free of charge
- information on the appropriate actions to take and persons to contact in an emergency involving blood or OPIM
- explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available
- information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident
- explanation of the signs and labels and/or color coding required by the standard and used at this facility
- opportunity for interactive questions and answers with the person conducting the training session

Training materials for this facility are available from the Safety Officer.

## **RECORDKEEPING**

### Training Records

Training records are completed for each employee upon completion of training. The Safety Officer will keep these documents. The training records include:

- dates of the training sessions
- contents or a summary of the training sessions
- names and qualifications of persons conducting the training
- names and job titles of all persons attending the training sessions

Employee training records are provided upon request to the employee or the employee's authorized representative within 15 working days. Such requests should be addressed to the Safety Officer.

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### Medical Records

The Office of Human Resources will maintain the medical records of an employee with an occupational exposure for the duration of employment plus 30 years. Medical records shall include:

- The name and social security number of the employee
- A copy of the employee's Hepatitis B vaccination status including the dates of all the Hepatitis B vaccinations and any medical records relative to the employee's ability to receive vaccination
- A copy of all results of examinations, medical testing, and follow-up procedures
- A copy of the information provided to the healthcare professional
- The employee's copy of the healthcare professional's written opinion

Medical records will be kept confidential and not disclosed or reported without the employee's express written consent to any person within or outside the workplace except as required by law.

### OSHA Recordkeeping

An exposure incident is evaluated to determine if the case meets OSHA's Recordkeeping Requirements (29 CFR 1904). The Safety Officer completes this determination and the recording activities. The Safety Officer will complete the sharp injury log as indicated.

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**References:**

CDC. Public Health Service Guidelines for the Management of Health-Care Worker Exposures to HIV and Recommendations for Post-exposure Prophylaxis. MMWR 1998; 47(RR7):1-33

CDC. Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Post-exposure Prophylaxis. MMWR 2001; 50(RR11):1-42

Department of Labor, Occupational Safety and Health Administration. 29 CFR Part 1910.1030. Occupational Exposure to Bloodborne Pathogens; final rule. Federal Register 1991; 56:64004-182

Department of Labor, Occupational Safety and Health Administration. 29 CFR Part 1910.1030. Occupational Exposure to Bloodborne Pathogens; Needle-sticks and Other Sharp Injuries; final rule. Federal Register/Vol.66/No.12/January 18, 2001

Department of Labor, Occupational Safety and Health Administration. Compliance Directive CPL 2-2.44D - Enforcement Procedures for the Occupational Exposure to Bloodborne Pathogen. November 5, 1999

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Frostburg State University  
Frostburg, Maryland

Name: \_\_\_\_\_ Dept: \_\_\_\_\_

Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Physician: \_\_\_\_\_

Medication Allergies: \_\_\_\_\_

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I have received training pertaining to the Hepatitis B Vaccine. I have been given the opportunity to have all questions answered and I understand the information relating to the vaccine. I understand my participation in this program is voluntary and is it at no cost to me.

I have decided to participate. \_\_\_\_\_

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

I have decided not to participate. \_\_\_\_\_

**HEPATITIS B VACCINE DECLINATION (MANDATORY)**

I understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk of acquiring Hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with Hepatitis B vaccine, at no charge to myself. However, I decline Hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring Hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with Hepatitis B vaccine, I can receive the vaccination series at no charge to me.

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

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Report of Evaluation by Medical Consultant

1. Employee Name: \_\_\_\_\_  
Department: \_\_\_\_\_
2. Name of Medical Facility: \_\_\_\_\_
3. Is Hepatitis B Vaccine indicated for this employee?  
 Basic series  
 Booster dose  
 None
4. The following doses of Hepatitis B vaccine/HBIG have been administered to this employee?  
 Hepatitis B Immune Globulin (HBIG) \_\_\_\_\_  
Date  
 Hepatitis B Vaccine  
1<sup>st</sup> dose: \_\_\_\_\_ 2<sup>nd</sup> dose: \_\_\_\_\_ 3<sup>rd</sup> dose: \_\_\_\_\_  
Date Date Date  
 None
5. Has the employee been informed of the results of this evaluation?  
 Yes \_\_\_\_\_  
Date  
 No  
 Not applicable
6. Has the employee been counseled regarding the results?  
 Yes \_\_\_\_\_  
Date  
 No  
 Not applicable

\_\_\_\_\_  
Signature of Medical Consultant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print name of Medical Consultant

\_\_\_\_\_  
Date

***Please return this form to:*** Brady Health Center  
Frostburg State University  
101 Braddock Rd  
Frostburg, MD 21532