



# Bloodborne Pathogens Exposure Control Plan

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# Table of Contents

Policy Statement	1
Introduction	3
Updates	
OSHA Directive, November 1999	4
Needlestick Safety and Prevention Act, April 2001	5
Definitions	6
Exposure Determination	9
Universal Precautions	11
Personal Protective Equipment	12
Hepatitis B Vaccination	14
Post-Exposure Evaluation and Follow-up	15
Evaluation of Circumstances Surrounding an Exposure Incident	18
Training	19
Communication of Hazards to Employees	20
Recordkeeping	21
Engineering Controls and Work Practices	22
Task-Specific Work Practices and Engineering Controls	
1. Removal of Human Blood or OPIM from University Grounds	24
2. Plumbing Activities	24
3. Sewage Cleanup	24
4. Housekeeping Procedures in Bathrooms and Dormitories	25
5. First-Aid and CPR Providers	26
6. Handling and Storage of Regulated Waste	26
7. Laundering of Contaminated Clothing or Bed Linens	28
8. HIV/HBV Research Laboratories and Production Facilities	29
9. Research/Teaching Activities Involving Handling of Human Blood or OPIM	31
10. Procedures for Athletic Department Trainers and Sporting Event Officials	31
11. MUPD Emergency Response Activities	32
Appendix I: OSHA Bloodborne Pathogen Standard, 29 CFR 1910.1030	37
Appendix II: WV Infectious Medical Waste Rule, 64 CSR 56	38
Appendix III: Engineering Control Evaluation Forms	39
Appendix IV: Disposal of Regulated Medical Waste	40
Appendix V: HBV Vaccination Declination Form	43
Appendix VI: Informed Refusal of Post-Exposure Medical Evaluation Form	44
Appendix VII: Useful Web Sites	45

# Policy Statement

## I. Purpose

To establish the process for compliance with the Occupational Safety and Health Administration (OSHA) regulation, "Occupational Exposure to Bloodborne Pathogens; Final Rule" (29 CFR Part 1910.1030) and its amendments.

## II. Policy

Marshall University is dedicated to providing a safe workplace for employees and students, and to complying with federal and state occupational safety and health standards. It is University policy to comply with the requirements of the OSHA Bloodborne Pathogens (BBP) Standard and its amendments. All faculty, staff, students, and visitors share responsibility for minimizing their exposure to human blood and other potentially infectious materials (OPIM).

The Exposure Control Plan (ECP) shall be implemented for all facilities at Marshall University where performance of employees' duties can be expected to result in occupational exposure to human blood or OPIM. All Marshall University employees have an opportunity to view this plan at any time during their work shifts by visiting the Safety and Health web site. If requested, Safety and Health will provide an employee with a copy of this ECP free of charge and within 15 days of the request.

## III. Responsibilities

1. Safety and Health shall:
  - (a) Prepare and distribute the ECP;
  - (b) Annually review the ECP for effectiveness and update as necessary. The update shall be required to reflect changes in technology that eliminate or reduce exposure to bloodborne pathogens.
  - (c) Provide or coordinate training for all affected workers concerning occupational transmission of bloodborne pathogens, as required in the standard;
  - (d) Maintain training records for all training activities conducted;
  - (e) Assist departments in identifying employee job classifications in which occupational exposure to human blood may occur; and
  - (f) Assist in coordinating disposal of regulated waste.
2. The Marshall University Medical Center shall:
  - (a) Provide medical evaluations, vaccinations and counseling to affected employees. Specific responsibilities include:
    - Pre-exposure prophylaxis (vaccinations)
    - Follow-up evaluation(s), including employee counseling
    - Provide Healthcare Professional's Written Opinion after Follow-up

- (b) Evaluate incidents of occupational exposure to human blood or OPIM resulting from performance of employees' duties and document the circumstances under which the exposure occurred.
  - (c) Provide initial and annual training to Medical Center employees.
  - (d) Document in the ECP the evaluation by non-managerial personnel of various medical devices with built-in safety features.
3. The affected Department Chairs/Directors shall:
- (a) Provide, at no cost to the employee, all supplies and personal protective equipment (PPE) and vaccinations that are necessary for compliance with this ECP;
  - (b) Control and maintain the confidentiality of medical records for all employees;
  - (c) Maintain training records for all employees in the department; and
  - (d) Provide specific work practice training and maintain copies of those training records.
4. University employees with occupational exposure to human blood or OPIM shall:
- (a) Adhere to the requirements of the ECP;
  - (b) Complete all safety training requirements and comply with documentation procedures; and
  - (c) Report all suspected exposure incidents.

#### **IV. Information**

Assistance will be provided by Safety and Health to any person or department requesting guidance or training to satisfy implementation of this policy.

The Chemical and Biological Safety Officer (CBSO) is responsible for reviewing and updating the ECP annually, or more frequently if necessary to reflect any new or modified tasks and procedures that affect occupational exposure and to reflect new or revised employee positions with occupational exposure.

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## Introduction

In 1991, the Occupational Safety and Health Administration (OSHA) published the Bloodborne Pathogens Standard (29CFR 1910.1030) in response to rising concern over transmission of HBV and HIV to healthcare workers. It covers all employees who could be "reasonably anticipated" to contact blood and OPIM as a result of performing their job duties. The standard requires:

- employee exposure determination
- implementation of exposure control methods, including:
  - observance of universal precautions
  - engineering and administrative/work practice procedures
  - provision and use of appropriate personal protective equipment
  - housekeeping
- provision of hepatitis B vaccine at no cost to employee
- post-exposure evaluation and follow-up
- evaluation of circumstances of an exposure incident and route of exposure
- annual training
- recordkeeping, for training and for medical records

Bloodborne pathogens are organisms that are present in the blood and certain other body fluids of infected persons. They are transmitted by blood-to-blood contact, not by casual contact. Examples of bloodborne pathogens are the human immunodeficiency virus (HIV), hepatitis B virus (HBV), and hepatitis C virus (HCV). The occupational routes of transmission of bloodborne pathogens are by 1) needlestick or cut from a contaminated sharp object; 2) splash to the eyes, nose, or mouth; and 3) contact with non-intact skin.

The BBP Standard refers to blood and OPIM. OPIM includes the following body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, and any body fluid that is visibly contaminated with blood. In this ECP, the terms blood and OPIM will be used to include all potentially infectious body fluids.

# Updates

## **OSHA Directive CPL 02-02-069: Enforcement Procedures for the Occupational Exposure to Bloodborne Pathogens**

On November 27, 2001, the Occupational Safety and Health Administration (OSHA) released new guidelines for enforcing the Occupational Exposure to Bloodborne Pathogens standard. The text of this directive is available at:

[http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=DIRECTIVES&p\\_id=2570](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=DIRECTIVES&p_id=2570)

### **Points of particular interest to the University:**

- Engineering controls **must be used** to prevent needlestick injuries. Effective engineering controls include sharps with engineered sharps injury protection (e.g., self-sheathing needles), needleless systems (e.g., needleless IV connection), and plastic capillary tubes.
- Diluted bleach must be mixed daily, i.e. not older than 24 hours.
- Appropriate disinfectants include:
  - Dilute bleach
  - Sterilants / High level disinfectants cleared by the FDA
  - EPA-registered tuberculocides (list B)
  - EPA-registered sterilants (list A)
  - EPA-registered products effective against HIV/HBV (list D)

Lists of EPA registered products are available at:

<http://www.epa.gov/oppad001/chemregindex.htm>

- Individuals trained in first aid and CPR need to be offered the Hepatitis B vaccination if this action is included in their duties.
- Resuscitator devices must be readily available and accessible to employees who can reasonably be expected to perform resuscitation procedures.
- An individual working with potentially infectious material must remove gloves before leaving the work area.
- It is recommended that employees who have on-going contact with patients or blood and are at on-going risk for injuries with sharp instruments or needlesticks be tested for antibody to hepatitis B surface antigen after completion of the vaccination series.

# **OSHA Needlestick Safety and Prevention Act**

## **April 2001**

The CDC estimates that 62% to 88% of the approximately 580,000 needlesticks from contaminated sharps that occur in the U.S. each year could be prevented by selecting safer medical devices. Based on these data, OSHA has revised its bloodborne pathogens standard to clarify the need for employers to select safer needle devices and to involve employees in identifying and choosing the devices. The updated standard also requires employers to establish a log to track needlesticks rather than recording only those cuts or sticks that actually lead to illness, and to maintain the privacy of employees who have suffered these injuries.

Examples of safer medical devices are:

- sharps with engineered sharps injury protections, a built-in safety feature or mechanism that effectively reduces the risk of an exposure incident, and
- needleless systems for the collection of bodily fluids after initial venous or arterial access is established.

The new standard requires employers to solicit employee input in choosing safer devices and to document this input in the ECP. Example forms for the evaluation of safer medical devices are located in Appendix III. These, or similar forms, must be used by supervisors to document the evaluation of various medical devices by non-managerial employees responsible for direct patient care.

## Definitions

**Blood** - human blood, blood components (plasma, platelets, and serosanguinous fluids- e.g., exudates from wounds), medications and others products made from human blood, such as immune globulins, albumin, and factors 8 and 9.

**Bloodborne Pathogens** – any pathogenic microorganisms that are present in human blood or OPIM that can infect and cause disease in exposed humans. The BBP Standard specifically addresses hepatitis B virus (HBV) and human immunodeficiency virus (HIV). Diseases caused by BBPs include: Hepatitis B, AIDS, Hepatitis C, malaria, syphilis, babesiosis, brucellosis, leptospirosis, arboviral infections, relapsing fever, Creutzfeldt-Jakob disease, adult T-cell leukemia/lymphoma (caused by HTLV-I), HTLV-I associated myelopathy, diseases associated with HTLV-II, and viral hemorrhagic fever.

**Contaminated** - the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

**Contaminated Laundry** - laundry that has been soiled with blood or other potentially infectious materials or may contain sharps.

**Contaminated Sharps** - any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, razor blades, broken glass, broken tubes, and exposed ends of dental wires.

**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 pathogens hazard from the workplace. Includes: safer medical devices, such as sharps with engineered sharps injury protections and needleless systems, sharps disposal containers, self-sheathing needles.

**Exposure Incident** - specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that result from the performance of an employee's duties.

**Handwashing Facility** - a facility providing an adequate supply of running potable water, soap, and single use towels and/or hot air drying materials.

**HBV** - hepatitis B virus. The infection may lead to chronic liver disease. Currently, there is a vaccine effective against HBV.

**HCV** - hepatitis C virus. According to the Centers for Disease Control (CDC), hepatitis C virus is the most common chronic bloodborne infection in the US. The infection may lead to chronic liver

disease. Currently, there is no vaccine effective against HCV.

**HIV** - human immunodeficiency virus. The infection leads to AIDS. Currently, there is no vaccine effective against HIV.

**Licensed Healthcare Professional** - a person whose legally permitted scope of practice allows him/her to independently perform Hepatitis B Vaccination and Post-exposure Evaluation and Follow-up.

**Needleless Systems** - a device that does not use needles for

1. the collection or withdrawal of body fluids after initial venous or arterial access is established,
2. the administration of medication or fluids, or
3. any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps.

**Non-Intact Skin** - includes skin with dermatitis, hangnails, cuts, abrasions, chafing, acne, and sunburn.

**Occupational Exposure** - reasonably anticipated non-intact skin, mucous membrane, or parenteral contact with blood or OPIM that may result from the performance of an employee's duties. This does not cover "Good Samaritan" acts that result in exposure to blood or OPIM from voluntarily assisting fellow employees.

**Other Potentially Infectious Materials (OPIM)** –

1. Semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid 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);
3. HIV-containing cell or tissue cultures, organ cultures, and HIV-, HBV-, or HCV-containing culture medium or other substances; and blood, organs, or other tissues from experimental animals infected with HIV, HBV, or HCV.

**Parenteral** - piercing mucous membranes or the skin barrier through such events as needlesticks, human bites, cuts, and abrasions.

**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 is not considered personal protective equipment.

**Regulated Medical Waste** - liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.

**Sharps with Engineered Sharps Injury Protections** - non-needle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, with a build-in safety feature or mechanism that effectively reduces the risk of an exposure incident.

**Source Individual** - any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee. Examples include, but are not limited to, student-athletes; hospital and clinic patients; trauma patients; 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, but not limited to, highly resistant bacterial endospores.

**Universal Precautions** - an approach to infection control where all human blood and body fluids are treated as if known to be infectious for HIV, HBV, and/or 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 the recapping of needles by a two-handed technique)

# Exposure Determination

The following University job classifications have been identified as having reasonably anticipated exposure to bloodborne pathogens. This assessment is made without regard to the use of PPE. Job classifications are placed in one of two categories:

**Category 1:** A list of job classifications in which *all* employees have occupational exposure.

**Category 2:** A list of job classifications in which *some* employees have occupational exposure, and a list of tasks and procedures in which occupational exposure occurs.

Department	Category 1 Job Titles/Classifications	Category 2 Job Titles/ Classifications	Tasks for Category 2 Classifications
Academic Departments -Biochemistry -Biology -Cell Biology -Genetics -Chemistry -Nursing -Nutrition & Food Science		Assistant Professor Associate Professor Faculty Research Assistant Graduate Assistant Graduate Student Post-doctoral Fellow Pre-doctoral Fellow Professor Research Associate Research Scientist Senior Research Scientist	Use human material in research Use blood during phlebotomy instruction and lab exercises
Athletics	Head Athletic Trainer Asst. Athletic Trainer Assoc. Athletic Trainer Equipment Manager Asst. Equipment Manager Athletic Equip. Specialist	Student Assistant	Launder uniforms, towels
Campus Recreation	Life Guards Aerobic Exercise Leaders Water Aerobic Exercise Leaders Facility Supervisors Intramural Sport Supervisor Weight & Fitness Room Monitors	Campus Rec. Staff	Occasional responsibility as Manager on Duty
Child Development Academy	Lead Teacher Teacher Assistant Substitute Operations Manager / Assistant Teacher	Academy Director Program Director Office Manager Cook 1 Cook 2	Emergency response
Facilities Maintenance	Housekeeper Plumber Specialist Plumber Preventive Maintenance	Carpenter Electrician Groundskeeper HVAC Painter	Emergency response

Department	Category 1 Job Titles/Classifications	Category 2 Job Titles/ Classifications	Tasks for Category 2 Classifications
Medical Center	Physician Physician Assistant Nurse Practitioner Nurse Nurse Aide Medical Assistant Laboratory Technician Medical Technologist Phlebotomist Laboratory Assistant Housekeeper Maintenance		
Memorial Student Center	Service Worker Housekeeper Housekeeping Supervisor	Facilities Director	Support of staff
Public Safety	Police Officer Director	Dispatcher	Search prisoners, process evidence
Residence Services	Housekeeper Maintenance Plumber	Carpenter Electrician HVAC Painter	Emergency response
Safety and Health	Chemical & Biological Safety Officer	Director Safety Specialist	Emergency response

# Universal Precautions

All employees will use Universal Precautions, a method of infection control in which all human body fluids, blood, tissue, and OPIM are treated as if known to be infectious for HIV, HBV, or other bloodborne pathogens, regardless of the perceived “low risk” status of a patient or patient population.

Universal precautions are intended to prevent occupational exposure to human blood. The routes of transmission for occupational exposure are:

- 1) puncture of the skin with a contaminated sharp object,
- 2) contact with non-intact skin, and
- 3) splash to mucous membranes of the eye, nose, or mouth.

## **Universal precautions include the following practices:**

- Wear gloves when hands may come into contact with human body fluids, blood or OPIM. Replace gloves when they become torn or contaminated.
- Wash hands and other skin surfaces immediately following contact with human body fluids, blood or OPIM, and after gloves are removed.
- To prevent exposure of mucous membranes of the mouth, nose and eyes, wear a facemask or shield and protective eyewear whenever splashes, spray, or spatter of blood or OPIM are likely to occur. Safety glasses must be worn even with facemasks/shields.
- Wear protective suits, gowns or aprons during procedures that are likely to generate splashes of potentially infectious materials.
- Use care when handling needles, scalpels, razors and other sharp objects contaminated with blood or OPIM. Use tongs or forceps if possible.
- Use appropriately-labeled and constructed containers for disposal, storage, and transport of any potentially infectious material.
- Employees responsible for first aid should use protective resuscitation masks for mouth-to-mouth resuscitation.
- Health care workers or first aid providers must cover skin lesions and wear gloves when treating patients or when handling healthcare equipment.
- Do not eat, drink, apply cosmetics or lip balm, smoke, or handle contact lenses in work areas where there is likelihood of occupational exposure. Do not keep food and beverages in refrigerators, freezers, shelves, cabinets, or on countertops where human blood or OPIM are present.

# Personal Protective Equipment

Personal protective equipment (PPE) is provided to employees at no cost. All employees who have potential skin, eye, mouth, mucous membrane, or parenteral contact with human blood or other potentially infectious material must wear PPE that will act as a barrier to these materials. The type(s) of protective clothing or equipment used in a specific instance will depend on the job being performed. The following protective clothing and equipment will be made available for use depending upon the activity performed:

## Gloves

Gloves are worn when there is a possibility for direct hand contact with human blood or OPIM. There are several types of gloves available, and selection should be based upon the job being performed:

- **Latex or nitrile exam 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 and nitrile gloves are available either powdered or powder-free. If an employee has a skin reaction from the gloves, hypo-allergenic and/or powder-free types must be provided. All such gloves are disposable and are not to be reused.
- **Polyvinyl chloride (PVC) gloves** are also 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, and are available in a variety of sizes. PVC gloves are not recommended for work with human blood or OPIM 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, such as cleaning blood spills. They may be re-used if properly decontaminated following contact with potentially infectious materials. Reusable gloves should be periodically inspected to ensure there are no cracks, holes or breaks in the material; if any are found, they must be discarded.

## Eyewear

Goggles with solid side shields or chin-length faceshields must be worn when there is a risk of splashing human blood or OPIM. 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 splashing human blood onto the mucous membranes of the nose and mouth. If masks are disposable, they must be removed immediately following use and not be reused. Reusable masks and face shields must be properly handled, cleaned and decontaminated prior to reuse.

**Clothing**

Protective clothing must be worn when there is a risk of human blood or OPIM splattering a worker's skin or clothing. There are various types of suits, gowns and aprons 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 may be disposable or reusable. Reusable clothing must be properly laundered prior to reuse.

**Resuscitation  
Masks**

Personnel who perform cardiopulmonary resuscitation (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 CPR without mouth-to-mouth contact. Most masks are also fitted with a one way valve which 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 that is soiled may be disposed of in biohazard bags, then autoclaved.
- 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, 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, puncturing, 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 eye, 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.

# Hepatitis B Vaccination

Safety and Health will provide annual training to employees with occupational exposure. The training will include information about hepatitis B vaccine, addressing its safety, benefits, efficacy, methods of administration, and availability.

The hepatitis B vaccination series is available at no cost, within 10 days of initial assignment, to employees identified in the exposure determination section of this plan. Documentation of hepatitis vaccination is kept in the employee's medical record maintained by each department.

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.

If an employee chooses to decline vaccination the employee must sign a declination form (see Appendix V). Employees who decline may request and obtain the vaccination at a later date at no cost. Documentation of refusal of the vaccination is kept in the employee's medical record maintained by each department.

Vaccination is provided at the Department of Family and Community Health located on the first floor of the Marshall University Medical Center.

Employees who have on-going contact with patients or blood and are at on-going risk for injuries with sharp instruments or needlesticks may be tested for antibody to hepatitis B surface antigen one to two months after completion of the vaccination series.

## Post-Exposure Evaluation and Follow-up

Post-exposure evaluation and initiation of prophylaxis therapy, if indicated by a licensed healthcare professional, is available to any Marshall University employee who is exposed to blood or OPIM. Post-exposure management and follow-up regimens are recommended by the U.S. Public Health Service and the Centers for Disease Control and Prevention (CDC):

[http://www.cdc.gov/ncidod/dhqp/gl\\_occupational.html](http://www.cdc.gov/ncidod/dhqp/gl_occupational.html)

Take the following steps for every exposure incident:

1. **Stop** what you are doing when it is safe to do so.
2. **Wash** the exposed area immediately according to the following:
  - **Percutaneous Exposure (needlestick, sharp object injury, puncture wound)**

Include all exposures, even where there is the slightest suggestion that the integrity of skin has been broken by a potentially contaminated item

    - Wash wound thoroughly with soap and running water; if water is not available use alcohol. Betadine soap, not Betadine solution, is also acceptable for this step.
    - Washing with soap directly reduces the virus' ability to infect.
    - Remove any foreign materials embedded in the wound during washing.
  - **Non-intact Skin Exposure (open wound, dermatitis, abrasion, burn, acne, etc.)**
    - Wash skin thoroughly as indicated above.
    - There is no evidence that squeezing the wound or applying topical antiseptics further reduces the risk of viral transmission.
    - The application of caustic agents (e.g., bleach) or the injection of antiseptics or disinfectants into the wound is not recommended.
  - **Mucous Membrane Exposure (eyes, nose, mouth)**
    - Flush the affected area with clean, cool, running water for 15 minutes.
  - **Intact Skin Exposure**
    - Wash wound thoroughly with soap and running water.
    - Note: intact skin exposure to potentially contaminated material is not considered an exposure incident and no further action is necessary.
3. **Report** the exposure to your supervisor.
  - Exposed individual and supervisor should identify the source individual and obtain their name, address, telephone number and other relevant contact information as may be needed to reach them regarding future blood testing.
    - Exposed individual should take a copy of this information with them to the Emergency Department.
    - Testing will not be conducted on any items except blood from source individuals who grant consent. Do not retain any contaminated instruments or equipment for testing.

#### **4. Seek Post-Exposure Evaluation**

- Supervisor should immediately direct the exposed individual to the Emergency Department (ED) at either Cabell-Huntington Hospital or St. Mary's Medical Center, or nearest hospital for personnel working outside of the City of Huntington. The exposed individual should identify themselves as having been exposed to a potential bloodborne pathogen and request urgent evaluation.
  - Administration of post-exposure prophylaxis (PEP) is recommended as early as possible, preferably within 1 hour.
  - If the exposed individual is an employee, they should ensure a Worker's Compensation Form is generated and their insurance is not billed.
  - If the exposure occurs after work hours or the supervisor is not immediately available, the exposed person should proceed on their own to the ED for immediate evaluation. The exposed person is to report the incident to their supervisor as soon as possible.
  - Students will not receive coverage under Worker's Compensation. Students are encouraged to maintain health insurance. More information is available through the Office of Student Health Education Programs located in Prichard Hall Room 136, 304.696.4800.
- If the exposed individual refuses post-exposure evaluation and follow-up he/she must complete an Informed Refusal of Post-Exposure Medical Evaluation form, Appendix VI. Supervisor should send a copy to Safety and Health immediately.

#### **4. Document the exposure incident**

- Supervisor is responsible for completing a Workplace Injury/Workplace Illness Report Form, available on the Safety and Health web site:  
<http://www.marshall.edu/safety/files/HR-SERV-FORM-31.pdf>
- Report should include the following
  - All contact information collected for the source individual
  - A description of the employee's job duties as they relate to the exposure incident
  - Documentation of the route(s) of exposure (from those listed in item 2 above) and circumstances under which exposure occurred
- Department responsible for employee should be ready to provide employee with their medical record, which includes their hepatitis B vaccination information.
- Department should also provide a copy of the completed Workplace Injury/Workplace Illness Report.
- Safety and Health will provide a copy of the Bloodborne Pathogen Standard

#### **5. Seek Medical Follow-up at Marshall University Medical Center – Internal Medicine Department**

- Employee should take with them to the medical follow-up all of the information listed in item 4 above.
- The physician conducting the medical follow-up will review all information and will
  - Discuss the results of the post-exposure evaluation
  - Discuss the source individual's test results, if available, and the applicable disclosure laws and regulations concerning the identity and infectious status of the

- source individual (e.g., laws protecting confidentiality).
- Provide counseling about any medical conditions resulting from exposure to blood or OPIM which require further evaluation or treatment.
- Evaluate reported illnesses.
- The exposed individual's blood will be collected and tested after consent is obtained.
- If the exposed individual does not give consent for HIV serological testing during collection of blood for baseline testing, preserve the baseline blood sample for at least 90 days; if the exposed employee elects to have the baseline sample tested during this waiting period, perform testing as soon as feasible.
- The Internal Medicine Department will provide Marshall University with a copy of the evaluating health care professional's written opinion within 15 days after completion of the evaluation.
- After the medical follow-up, the exposed individual will return their medical record to their department, and the written opinion will be added to the record.

**Additional Information Resources:**

<p><b>National Clinicians' Postexposure Prophylaxis Hotline (PEPline)</b> Offers health care providers 24/7 advice on managing occupational exposures to HIV and HBV. Exposed persons can seek advice and direction at any time, but may find it helpful if there are questions in the immediate exposure period that are not being immediately handled or answered clearly.</p>	<p>Phone: (888) 448-4911 Internet: <a href="http://www.nccc.ucsf.edu/Hotlines/PEPline.html">http://www.nccc.ucsf.edu/Hotlines/PEPline.html</a></p>
<p><b>CDC Viral Hepatitis Hotline</b></p>	<p>Phone: (888) 443-7232 Internet: <a href="http://www.cdc.gov/hepatitis">http://www.cdc.gov/hepatitis</a></p>
<p><b>Reporting to CDC - Division of Healthcare Quality Promotion</b> Occupationally acquired HIV infections and failures of PEP.</p>	
<p><b>GlaxoSmithKline Pregnancy Registry</b> Intended only for healthcare providers, to enroll a pregnancy exposed to prescription medicine (antiretroviral), or request interim results from a registry.</p>	<p>Phone: (800) 258-4263 Fax: (800) 800-1052 Address: 1410 Commonwealth Drive, Suite 215 Wilmington, NC 28405 Internet: <a href="http://pregnancyregistry.gsk.com/">http://pregnancyregistry.gsk.com/</a></p>
<p><b>Food and Drug Administration</b> Report unusual or severe toxicity to antiretroviral agents.</p>	<p>Phone: (800) 332-1088 Address: MedWatch HF-2, FDA 5600 Fishers Lane Rockville, MD 20857 Internet: <a href="http://www.fda.gov/Safety/MedWatch/default.htm">http://www.fda.gov/Safety/MedWatch/default.htm</a></p>
<p><b>HIV/AIDS Treatment Information Service.</b> A service of the U.S. Department of Health and Human Services.</p>	<p>Internet: <a href="http://www.hivatis.org">http://www.hivatis.org</a></p>

## **Evaluation of Circumstances Surrounding an Exposure Incident**

Safety and Health, in conjunction with the affected college dean or department head and appointed safety committee members, will review the circumstances of all exposure incidents to determine:

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

The results of this evaluation will be written and filed with the employee's Workplace Injury / Workplace Illness Report Form.

Systemic problems will be addressed by Safety and Health to ensure that appropriate corrective actions are taken in a timely manner to prevent additional incidents.

If appropriate, the incident evaluation will be used as training material for annual bloodborne pathogen training so illustrate the need for care in handling and working in areas where BBPs are present.

If it is determined that revisions need to be made, Safety and Health will ensure that appropriate changes are made to this ECP.

# Training

Training will be coordinated through Safety and Health and will be provided by: (1) Chemical & Biological Safety Officer; (2) Medical Center Safety Officer; (3) University Police - an accredited Emergency Medical Technician; and other trainers as approved by Safety and Health.

Training will be conducted in a manner appropriate to the educational level, literacy, and language of those employees receiving training. Training materials are available through Safety and Health.

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

- an explanation of the Bloodborne Pathogen Standard;
- an explanation of this ECP and how to obtain a copy;
- an explanation of methods to recognize tasks and other activities that may involve exposure to blood and OPIM, including what constitutes an exposure incident;
- an explanation of the use and limitations of engineering controls, work practices, and PPE;
- an explanation of the types, uses, location, removal, handling, decontamination, and disposal of PPE (provided by the supervisor);
- an 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;
- an 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;
- an explanation of the signs and labels and/or color coding required by the standard and used at this facility; and,
- an opportunity for interactive questions and answers with the person conducting the training session.

## **HIV and HBV Laboratories**

Additional training is required for laboratory employees who work with HBV or HIV. The Principal Investigator (PI) must be proficient in microbiological techniques, and in those operations specific to his/her research. Laboratory workers must have prior experience in the handling of human pathogens or tissue cultures before working with HIV or HBV. For employees who have no such experience, the PI must provide a training program to allow the employee to gain the proper experience. This training program shall be progressive, and must not involve the handling of infectious agents until proficiency has been demonstrated. Documentation of training and demonstration of proficiency is the responsibility of the PI.



## Communication of Hazards to Employees

**Warning labels**, which are predominantly fluorescent orange or orange-red, shall include the following symbol:



and shall be attached to:

- all containers of biological waste;
- refrigerators/freezers where human blood or OPIM are stored;
- containers used to store, transport or ship human blood or OPIM; and
- equipment that has been contaminated with human blood or OPIM if not decontaminated immediately.

### Exceptions

The only exceptions to this requirement are: (1) red bags or red containers may be substituted for label information; (2) containers of blood, blood components, or blood products that are labeled as to their contents and have been released for transfusion or other clinical use; and (3) containers of biological waste that have been decontaminated (e.g., through steam sterilization) need not be labeled or color-coded, and may be discarded as normal refuse.

**HIV and HBV Research Laboratories** shall have signs posted at the entrance to work areas that contain the following information:



**BIOHAZARD**

(Name of the infectious agent)

(Special requirements for entering the area)

(Name, telephone number of the laboratory director or other responsible person)



## Recordkeeping

**Medical records** will be maintained for each employee with occupational exposure in accordance with 29 CFR 1910.20, “Access to Employee Exposure and Medical Records.”

Each college or department is responsible for the maintenance of the required medical records. These confidential records are kept for at least the duration of employment plus 30 years. These records include: (1) name and social security number of the employee; (2) copy of the employee's hepatitis B vaccination status including dates of vaccinations and relevant supporting records; (3) copy of all results of examinations, medical testing and follow-up procedures; (4) copy of any healthcare professional's written opinion; and (5) copy of any exposure incident evaluation reports.

Employee medical records are provided upon request of the employee or to anyone having written consent of the employee within 15 working days. Such requests should be sent to the department chair/director.

**Training records** will be maintained by each department, and Safety and Health will have a copy of all trainings conducted. Records kept by each department shall include: (1) dates of training sessions, (2) contents of training, (3) names and qualifications of persons conducting the training, and (4) names and job titles of all persons attending the training sessions.

Training records will be maintained for 3 years from the date on which the training occurred.

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 department head, or to the Director of Safety and Health.

### **OSHA Recordkeeping**

An exposure incident is evaluated to determine if the case meets OSHA's Recordkeeping Requirements (29 CFR 1904). This determination is done by Safety and Health, and the recording activities are done by Human Resource Services.



# Engineering Controls and Work Practices

Engineering controls and administrative / work practice controls will be used as the primary and secondary means, respectively, of eliminating or minimizing employee exposure to bloodborne pathogens. General engineering controls and administrative / work practice controls are listed below. Controls for specific tasks are outlined in following sections of this ECP.

## 1. Work Practices

- Eating, drinking, storing food, using tobacco products, applying cosmetics or lip balm, and handling contact lenses are prohibited in areas where human blood or OPIM are present.
- Handle contaminated material (especially sharps) with tongs, or dustpan and broom. Gloves do not protect against punctures or cuts.
- Place sharp objects into approved sharps containers; must be puncture-resistant, leakproof on the sides and bottom, and have a biohazard label. Place other materials contaminated with human blood or OPIM into red or orange biohazard bags.
- Bring the appropriate sharps container or biohazard disposal bag to the site, and place the contaminated material(s) promptly inside.
- Do not bend, break, shear, recap, or remove contaminated needles.
- Wear gloves and other PPE as necessary when handling material.
- Remove gloves carefully to avoid touching their outside surfaces with bare hands, and place into biohazard bag.
- Dispose of contaminated material as Regulated Medical Waste.

## 2. Hand Washing

- Wash hands with soap and water immediately after removal of gloves.
- If handwashing facilities are not available, use antiseptic hand cleaner and clean paper towel, or antiseptic towelettes, then wash hands with soap and water at the earliest opportunity.

## 3. Decontamination of Work Surfaces

Use an approved disinfectant for decontamination of work surfaces (see pg. 5 for a list of approved disinfectants). If a bleach solution is used, it must be made fresh daily. Precautions must be taken by employees to prevent exposure during cleanup and disinfection of surfaces contaminated with blood or OPIM. The level of personal protection should be appropriate for the anticipated exposure. For routine work surface decontamination, exam gloves should provide ample protection. Any procedure involving cleanup of blood or OPIM should be done in a way that minimizes splashing, spraying, or spattering.

## 4. Cleanup of Blood or OPIM Spills

- First, identify the extent of the contamination. Contact Safety and Health and/or MUPD for large spills (area greater than one square foot) or when additional assistance is required.



- Make sure all of the materials necessary for the decontamination activity are available. Contact Safety and Health for assistance if needed. Do not begin cleanup without proper equipment.  
Items that are commonly needed include:
  - Biohazard disposal bags
  - Puncture-proof sharps containers
  - Forceps or tongs (to pick up contaminated sharp objects)
  - Paper towels or other absorbent material
  - Mop and pail
  - EPA-approved tuberculocidal disinfectant, or a freshly prepared 10% bleach solution.
- Dress in the appropriate PPE. Minimal protection includes latex gloves and a laboratory or housekeepers coat. Safety glasses / goggles are always required. A face shield is required if there is a potential for splash or splatter, and when working at or above waist level. Safety glasses / goggles must always be worn underneath a face shield. Disposable shoe covers, and a fluid-resistant gown or apron may also be required depending on the situation. Care should be taken not to splash or aerosolize any of the material during the decontamination process.
- Spray the entire area and contents of the spill with the disinfectant.
- Use forceps or tongs to pick up any broken glass or sharp objects, and place them into the sharps container.
- Limit the spread of the spill by gently covering the area with paper towels or absorbent material. Tissue and other organic matter should be removed with the use of paper towels, and placed into a biohazard disposal bag. Care should be taken to prevent splashing or aerosolizing of the material. Remove absorbent material, working from the outside toward the center of the spill.
- After all of the objects, paper towels, organic matter, etc., have been removed from the spill site:
  - Lay clean paper towels over the area.
  - Gently pour tuberculocidal disinfectant or 10% household bleach mixture over the towels.
  - Allow the disinfectant to remain in contact with the spill area for the time period indicated on the label. If a bleach solution is used it should be allowed to remain in contact for 20 minutes.
  - After the appropriate time period has passed, discard the paper towels in a red or orange biohazard bag.
- Remove all PPE, being sure to remove gloves last. All disposable PPE must be placed into the biohazard bag. Thoroughly wash your hands as soon as possible, and put on a fresh pair of gloves to handle or transport Biological Waste containers. Reusable PPE and decontamination equipment, such as goggles and mops, are to be taken to the appropriate area for decontamination, and treated in the same manner as described above. New PPE shall be worn when decontaminating reusable equipment. After equipment decontamination, remove PPE and wash hands thoroughly.
- Complete and submit a Biohazard Spill Occurrence Report form, available on the IBC



web site: <http://musom.marshall.edu/biosafety/>.



# Task-specific Engineering Controls and Work Practice

## 1. Removal of Human Blood or OPIM from University Grounds

Human blood or OPIM may occasionally be found on campus. Materials may include sharps (needles, scalpels, razors, etc.), bandages, condoms, or other substances or objects that may be contaminated with human blood or OPIM. These materials should be removed and the grounds disinfected following the work practices and engineering controls outlined in item 4 above.

- Decontamination of outside surfaces (e.g., lawns) requires the same level of personal protection as described in the previous section.
- It is often not possible to completely remove all visible traces of a potentially infectious material without causing significant property destruction. In these cases, apply an approved disinfectant in a manner and quantity that allows for complete disinfection.

## 2. Plumbing Activities

Most of the body fluids directed into the sanitary system are not regulated under the OSHA Bloodborne Pathogens Standard. However, several diseases are associated with exposure to sewage. Employees who are involved in drain plumbing activities will be provided equipment to prevent contact with this type of material. Appropriate PPE (gloves and eye protection) is available, and must be used by any worker clearing a blockage in sanitary drain systems.

### Drain Repairs (General)

- Flush piping with excess water (hot water, if available) prior to maintenance of drain piping if possible.
- Wear appropriate gloves before breaking into the drain system.
- If drain traps are removed, disassemble carefully and inspect contents for human blood or OPIM and sharps.
- Handle sharps (needles, razors, broken glass) with tongs. Immediately place any sharp objects into sharps containers.
- Keep sharps containers closed except when placing materials inside. Sharps containers must be puncture-resistant, labeled or color coded, and leakproof on the sides and bottom.

### Drain Repairs (Academic laboratories)

- In addition to the steps outlined for general drain repairs, employees should take additional protective measures when repairing drains in laboratories to prevent contact with drain contents.
- Confirm from laboratory personnel that any necessary decontamination has been performed prior to entry into the lab.
- Wear appropriate gloves, safety glasses, and a faceshield when there is potential for splash or splatter, before starting repairs.
- If there is a likelihood that drain contents will splash onto employees' clothing, wear fluid-resistant coveralls.

## 3. 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 OSHA Bloodborne Pathogens Standard. It is recognized however, that employee exposure to raw sewage can cause illness and extreme discomfort. Employees should use the following procedures for clean-up of sewage:

- Wear utility gloves for all sewage cleanups.
- If cleanup activities will cause splashing, wear safety glasses / goggles and a faceshield.
- If sewage depth is greater than 1/8", wear water-proof boots.
- Water-resistant coveralls will be provided for larger cleanup activities that might produce splashing of employees' clothing.
- Remove sewage materials from floors and other surfaces with wet-vacuums, brooms, squeegees, etc., and dispose into a properly-functioning sanitary drain.
- Sewage-saturated papers, books and other items may be discarded into outside trash receptacles after employee has received approval from the occupant(s).
- If occupants wish to keep sewage-contaminated items, contact Safety and Health.
- During cleanup, watch for visible human blood or OPIM and sharps (needles, razors, broken glass).
- Handle sharps with tongs and immediately place sharp objects into sharps containers.
- Keep sharps containers closed except when placing materials inside. Sharps containers must be puncture-resistant, leakproof on the sides and bottom, and have a biohazard label.
- Try to remove sewage materials from soft or porous surfaces (carpets, office partitions, etc.) with wet-vacuums, carpet-cleaners, steam-cleaners, etc. An appropriate disinfectant should then be applied to these surfaces and allowed to air-dry. Application of bleach solutions to carpets, furnishings, etc., should be avoided.
- Following removal of the sewage material, apply an appropriate disinfectant to all surfaces that were contacted by the sewage. Hard surfaces should be wiped clean and left to dry following application of the disinfectant.
- If the spill site is large use a 5% bleach solution for disinfection. Prepare by mixing 1 part household bleach with 19 parts water. Bleach solutions should not be used to disinfect fabrics such as carpets, and should be prepared fresh daily.
- Disinfect all reusable equipment with disinfectant prior to removal from the site.

#### **4. Housekeeping Procedures in Bathrooms and Dormitories**

The routine cleanup and disinfection of bathrooms and dormitory areas are not considered activities that fall under the requirements of the Bloodborne Pathogens Standard. It is recognized, however, that infectious agents responsible for other commonly-occurring diseases may be present. Application of disinfectant to bathroom surfaces is commonly used to reduce occurrences of such diseases. Disinfectants used for this purpose must be used according to the manufacturer's directions. The Material Safety Data Sheet (MSDS) may also reference use of PPE.

##### **Broken Glass**

- Broken glass is not considered Regulated Medical Waste unless it is visibly contaminated with human blood or OPIM. However, this material must be handled with extreme care nonetheless.
- Sweep broken glass into a dustpan for placement into the disposal container. Broken glassware should be placed into a rigid cardboard box for disposal into the



dumpster.

- Visibly contaminated glassware should be placed into a sharps container. Sharps containers must be puncture-resistant, labeled with the biohazard sign or color coded, and leakproof on the sides and bottom.

### **Bed Linen and Cloth Items**

- Bed linen, clothing, or towels are not treated as Regulated Medical Waste unless there is visible contamination with human blood or OPIM.
- Items which appear to be contaminated with human blood or OPIM shall only be handled by employees who have received the required training and PPE. If a non-trained employee finds a potentially-contaminated item, he/she should contact their supervisor.
- Contaminated linen, towels, etc., should be disposed in biohazard bags, or laundered by a trained employee in an approved location (i.e., Athletics Department uniform laundry).

### **Housekeeping in Bathrooms**

Employees who are responsible for housekeeping activities in bathrooms need to take preventive measures to prevent contact with human blood or OPIM. Follow the Engineering Controls and Work Practice in the preceding section for the cleanup and decontamination of potentially infectious material such as blood spills, contaminated razors or broken glass, used condoms, etc.

**Disposable razors** are routinely discarded in residential bathroom facilities. Workers who are responsible for housekeeping in these areas may carefully empty trash containing these razors.

**Feminine hygiene products** are routinely placed into the bathroom's common waste receptacle. West Virginia specifically exempts these items from being treated as Regulated Medical Waste. Receptacles should be lined with a plastic bag and the bag may be removed and disposed as normal trash. Employees should wear gloves when removing and handling all trash bags. Employees should wipe or spray disinfectant on containers used for disposal of these items.

## **5. First-Aid and CPR Providers**

Employees who provide first-aid or cardiopulmonary resuscitation (CPR) as a function of their job must have protective equipment available when emergency response is needed.

- A resuscitation mask should be available for employees who administer CPR. The mask allows for mouth-to-mouth resuscitation without direct contact. A check valve in the mask prevents exposure to the victim's exhaled air or vomitus.
- Exam gloves must also be available for use during emergency response activities.

## **6. Handling and Storage of Regulated Medical Waste**

Regulated Medical Waste, sometimes called Medical Waste, Infectious Medical Waste, Biohazard Waste, or Biological Waste. All of these names refer to waste material that contains human blood or OPIM. Implementation of the OSHA Bloodborne Pathogens Standard requires



proper handling, storage, and disposal of regulated waste. All employees who have been identified for inclusion into the program must be aware of the procedures and precautions for handling and storing regulated waste, which are described in Appendix IV of this document.

- There are two primary types of regulated medical waste containers that are provided to employees. The **sharps container** is constructed of puncture-resistant material and is designed for disposal of needles, razors, etc. The red or orange **biohazard bag** is a large plastic bag. Both containers must be labeled with the universal biohazard symbol.
- Sharps containers and biohazard bags may be used for multiple disposal opportunities if they are transported and stored so the contents do not spill. If containers are damaged, or if the outside surface becomes contaminated with human blood or OPIM, they should be placed into larger, intact containers for disposal.
- Keep containers in a secure location at all times except during transport or use. It is the supervisor's responsibility to designate appropriate central storage locations for regulated medical waste containers. Do not leave them unattended when they are in locations accessible to the general campus population. Employees who generate or collect regulated medical waste shall place it into the central storage location awaiting pick-up.

### **Laboratory regulated waste**

- Laboratory supervisors are responsible for ensuring that regulated medical waste from laboratories is either decontaminated or properly packaged and transported to the autoclave facility.
- Waste that is removed from laboratory facilities should be handled carefully, to prevent contact with the employee's body (i.e., don't allow container to bump into or brush against your body). Since needles and other sharps are commonly used in laboratories, it is prudent for employees to handle laboratory waste as though it may contain sharps.
- Refer to waste disposal guidelines in Appendix IV.
- Sharps containers must be closable, easily accessible to personnel, maintained in an upright position, opened only when sharps are placed inside, filled no more than 3/4 full to prevent inadvertent spillage or employee contact, puncture-resistant, labeled or color coded, and leakproof on the sides and bottom.
- If there is a possibility of leakage, the sharps container must be placed into a suitably leakproof and labeled secondary container (e.g., an intact biohazard disposable bag.)
- Employees should never reach into the sharps container when placing materials inside and should never attempt to retrieve materials.

### **Biohazard bags**

- Red or orange bags are used for the transport and disposal of waste items contaminated with human blood or OPIM that are not sharp,
- Biohazard bags may be transported by employees between uses, but should be protected from inadvertent damage and should be moved on a cart with secondary containment.
- They must be kept closed during transport by means of twist-ties, clips, etc.
- When the biohazard disposal bag is ready for disposal (do not fill over ¾ full), employees shall loosely gather the top of the bag and secure it with autoclave tape. Employees should not try to squeeze the air from biohazard disposal bags to reduce its size prior to disposal.



- In residence halls or other locations where autoclaves are not used, biohazard bags should be placed inside waste transport containers provided by the waste contractor. This should be done only by persons who have received the US DOT Biohazard Materials training. Contact Safety and Health for information about this training.

### **Central Storage and Pick-up of Regulated waste**

- Central storage locations for regulated medical waste should be designated by supervisors.
- Employees may bring biohazard disposal bags and closed sharps containers to these locations and place them into waste transport containers.
- Transport containers should remain closed when waste is not being added.
- Transport containers (cardboard boxes or plastic totes) must be labeled with the facility name and contact information, the date packaged, and they must be securely taped shut along every seam, or have their lids snapped shut.
- Do not attempt to pack down biohazard disposal bags into transport boxes.
- If the outside surface of the transport container is contaminated by a potentially infectious material, it must be placed into a second container which is leakproof, properly labeled, and closed prior to transport.
- Scheduled pick-ups of regulated waste from designated central storage locations will be per the provider of this contracted service.
- Manifest documentation of the waste shipment must be retained for 3 years. Contact Safety and Health for more information about contracts and recordkeeping requirements.

## **7. Laundering of Contaminated Clothing or Bed Linens**

The Department of Dining Services and the Athletics Department are responsible for laundering clothing or linen that may be contaminated with human blood or OPIM.

**The identification of contaminated clothing or bed linen** is based upon the visible presence of human blood or OPIM. "Dirty" clothing or bed linen which is not visibly contaminated may be handled and laundered by employees not identified as having occupational exposure to Bloodborne Pathogens. Care must be taken, however, to insure that these employees receive sufficient training to recognize potential contamination so they may defer this work to trained and protected workers.

### **Contaminated laundry or bed linen shall be:**

- handled as little as possible with a minimum of agitation,
- properly bagged and not sorted or rinsed at its point of origin,
- placed in appropriately-labeled and fluid-resistant containers by the generating department. Biohazard disposal bags are suitable for this purpose. The containers must be kept closed during transport and until clothing is removed for laundering.
- washed with detergent and water at a temperature of not less than 160° F for at least 25 minutes.

### **Personal Protective Equipment**

Employees responsible for handling contaminated clothing or bed linen shall utilize PPE to



minimize potential for exposures. At a minimum, appropriate gloves must be utilized when handling contaminated clothing or bed linen. If aerosolization of potentially-contaminated materials is likely (e.g., when removing contaminated clothing from a biohazard disposal bag which contains visible free liquid), the employee must wear a face shield or mask/goggles when handling the clothing.

- Remove protective clothing in a way that prevents skin contact with contaminated surfaces.
- Place any disposable items that have come into contact with the contaminated clothing or bed linen (including disposable gloves and the empty biohazard disposal bag) into a biohazard disposal bag for proper disposal.
- If reusable utility gloves are used, discard as regulated waste, or disinfect with disinfectant before leaving the site.
- If surfaces of face shields or goggles have become visibly contaminated, disinfect with disinfectant or place in regulated waste containers.

## **8. HIV and HBV Research Laboratories and Production Facilities**

This section applies to research laboratories and production facilities engaged in the culture, production, concentration, or experimentation of HIV or HBV. It does not apply to clinical or diagnostic laboratories engaged solely in the analysis of blood, tissues, or organs.

- Any PI, Laboratory Manager, or Instructor who plans to work with HBV, HCV, or HIV needs to complete the "Registration of Materials (Potentially) Infectious for Humans" form, and send it to the CBSO at Safety and Health before beginning work. The CBSO will evaluate the work and survey the facility according to the criteria in the current edition of the Department of Health and Human Services publication *Biosafety in Microbiological and Biomedical Laboratories*. The CBSO will report the proposed work and facility to the Institutional Biosafety Committee (IBC). Work may not begin until the IBC reviews and approves the proposed experiments.

### **Research laboratories and production facilities shall meet the following criteria:**

- Before disposal, all waste from work areas and from animal rooms is either incinerated or decontaminated by a method such as autoclaving known to effectively destroy bloodborne pathogens.
- Laboratory doors are kept closed when work with HIV or HBV is in progress.
- Access to the laboratory facility is limited to authorized persons. Written procedures and policies are established to ensure that only persons who have been advised of the potential biohazard, who meet any specific entry requirements, and who comply with all entry/exit procedures shall be allowed to enter.
- When OPIM or infected animals are present in the facility, a hazard warning sign, as described in 29 CFR 1910.1030(g)(1)(ii) must be posted on all access doors.
- Eating, drinking, smoking, applying cosmetics or lip balm, or handling contact lenses is prohibited in areas where work is occurring.
- Any procedure involving human blood or OPIM should be done in a way that minimizes splashing, spraying, or spattering.
- All work with HIV, HCV, and HBV cultures is conducted in properly operating and




- certified biological safety cabinets or other physical containment devices within the facility. No work with these materials shall be conducted on the open bench.
  - Laboratory coats, gowns, smocks, etc., shall be used in the work area and animal rooms. Protective clothing may not be worn outside the work area and shall be decontaminated before laundering.
  - Special care shall be taken to avoid skin contact with OPIM. Gloves are worn when handling animals, and when hand contact with potentially infectious materials is unavoidable.
  - After removal of gloves, immediately wash hands with soap and water.
  - Protect vacuum lines with liquid disinfectant traps and high-efficiency particulate air (HEPA) filters that are checked regularly and maintained/replaced, as necessary.
  - Use hypodermic needles only for the parenteral injection and aspiration of fluids from laboratory animals and diaphragm bottles. Needles shall not be bent, sheared, removed or replaced following use. The needle/syringe assembly shall be immediately placed into an appropriate sharps container and autoclaved or decontaminated before reuse or disposal.
  - All spills shall be immediately contained and cleaned up by laboratory staff properly trained and equipped to work with potentially infectious materials.
  - A biosafety manual shall be prepared or adopted and updated at least annually.
  - Biological safety cabinets (Class I, II or III), physical containment devices, special protective clothing, respirators, centrifuge safety cups, sealed centrifuge rotors, containment cages, etc. shall be used for all activities with infectious materials that pose a health threat due to exposure to droplets, splashes, spills or aerosols.
- Biological safety cabinets must be certified when installed, when moved, and at least annually thereafter.
  - Each laboratory shall have available: (1) facility for hand washing, (2) appropriate eyewash, and (3) autoclave for decontamination of infectious materials.

### **HIV and HBV Production Facilities**

- Production facilities shall be separated from areas of unrestricted traffic flow within the building. Entry into the facility shall be through two sets of doors. Surfaces of doors, walls, floors and ceilings shall be water resistant to facilitate cleaning. Penetrations in these surfaces shall be sealed, or be capable of being sealed to facilitate decontamination.
- HIV/HBV production facilities must have: (1) hand washing facilities near the exit door which are foot, elbow or automatically operated, (2) access doors which are self-closing, (3) an autoclave within or as near as possible to the work area, (4) a ducted exhaust-air ventilation system which creates a directional airflow into the facility and which totally exhausts outside the building away from occupied areas or air intakes.

### **Special Training**

- All employees in HIV/HBV laboratories must have prior experience in the handling of human pathogens or tissue cultures, and demonstrate proficiency in standard microbiological techniques and in the practices and operations specific to the facility before working with HIV, HCV, or HBV. Employees with no prior experience must be



provided with a training program. Initial work activities may not include the handling of infectious agents, and a progression of work activities should be assigned as techniques are learned and proficiency is developed. Proficiency must be demonstrated before infectious agents are handled. The PI is responsible for providing and documenting this specific training.

## **9. Research/Teaching Activities Involving Handling of Human Blood or OPIM**

All employees involved in teaching or research activities that require the handling of human blood or OPIM shall take precautions to prevent contact with these materials.

- Any PI, Laboratory Manager, or Instructor who plans to work with human blood, tissue, or OPIM needs to submit information on their proposed research to the Institutional Biosafety Committee Chair. The IBC will review and either deny or grant approval for the proposed research.
- Use **Universal Precautions** for all activities with human blood or OPIM.

## **10. Procedures for Athletic Department Trainers and Sporting Event Officials**

In the athletics environment, universal precautions should be utilized during the immediate control of bleeding and when handling bloody dressings, mouth guards and other articles contaminated with human blood or OPIM. The use of appropriate gloves for the examination, cleaning and dressing of wounds is required. Gloves must be available for all athletic events, training sessions and physical therapy sessions. Other PPE such as goggles, masks, face shields, fluid-resistant aprons, must be available and used as needed if there is a possibility for splashing or aerosolizing of human blood or OPIM.

- All personnel responsible for the treatment of wounds must be provided the necessary PPE. Place disposable gloves into a biohazard disposal bag immediately after use. Reusable contaminated PPE must be placed into an appropriately-labeled, leak-proof container until decontaminated.
- Use extreme care when handling sharp objects such as needles, razors and scissors. Needles should not be recapped, bent, broken or otherwise manipulated by hand. Disposable sharps must be immediately placed into a puncture-proof sharps container after use. Sharps containers must be puncture-resistant, labeled or color coded, and leakproof on the sides and bottom.
- Athletes may not compete at any level of competition if wounds have not been treated and covered.
- Athletic personnel with exudative lesions, open wounds or weeping dermatitis should avoid situations where they may come into contact with potentially infectious materials.
- The use of common towels or water bottles is discouraged because they may become contaminated with potentially infectious body fluids. Although transmission of bloodborne pathogens in saliva is extremely unlikely, dental or oral injuries increase the potential for transmission.
- Prior to any intercollegiate athletic competition, a designated representative of the University Athletic Department shall ensure that the visiting team has biohazard disposal bags and sharps containers for disposal of human blood or OPIM. Following completion



of the event, the Athletic Department representative shall collect any bags and containers that were used, and place them in incinerator boxes at central locations.

- Employees who provide first aid shall use resuscitation masks which permit administration of CPR without direct mouth-to-mouth contact.
- Place washable materials (jerseys, towels, splints, etc.) that have become contaminated with human blood or OPIM in appropriately-labeled, leak-proof plastic bags. These materials shall be handled and laundered according to the procedures outlined in Section 7, "Laundering of Contaminated Clothing or Bed Linens."
- Disinfect contaminated surfaces, instruments and equipment according to the procedures outlined in General Engineering Controls and Work Practices, pg. 19.
- Even if no contamination is observed, wrestling mats and other similar surfaces should be cleaned and disinfected regularly to prevent the spread of contagious skin infections.

## **11. MUPD Emergency Response Activities**

Sworn members respond to or have contact with emergency incidents in which they may be required to treat the ill and injured as well as provide for their transport. Activities may include controlling bleeding, application of bandages and dressings, and airway control/CPR.

Additionally, these employees may have contact with contaminated body fluids/tissues at crime scenes, arrest situations and evidence/property retrieval.

Designated civilian employees, Police Aides or the Evidence Technician may respond to crime scenes and handle evidence that is contaminated with blood/body fluids.

The following equipment will be utilized for the protection of employees and the public:

- Sharps Containers - will be in all Departmental first aid kits, and in Logistics and Investigations Units. These containers will have a lid to prevent spilling, and will display the biohazard symbol.
- Disposable Latex or Vinyl Gloves - will be issued to all affected employees. Heavy duty rubber gloves will be available for clean-up purposes. Disposable hypoallergenic gloves will be available to personnel who have allergies to regular-use gloves.
- Disposable CPR Masks (with one-way valves) - will be in all first aid kits.
- Disposable Face and Eye Protection - will be in all first aid kits.
- Waterless Hand Cleaner (antimicrobial) - will be in all first aid kits with hand towels as well as in Logistics and Investigations.
- Disposable Gowns and Shoe Covers - will be in all PPE kits.
- Biohazard Disposal Bags and Ties - will be in all first aid kits, Investigations, and Logistics. They will be used for the disposal of infectious waste and containment of evidence contaminated with body fluids/blood. Additional bags will be used if the primary container leaks or becomes contaminated on the outside.
- Contaminated Evidence Shipping/Storage - If contaminated evidence is removed from biohazard bags and placed in other containers for storage or transport to another agency for analysis, the container will display the biohazard symbol.
- Disinfection Kits - will be available to all affected employees for cleaning departmental issued equipment (except for uniforms and clothing), and the interior of transport vehicles.



Waste Containers - will be placed in designated areas. These containers will have the biohazard symbol on them, and be designed so as not to spill their contents.

**PPE Kits** will be in all Department first aid kits as well as in Logistics and Investigations. Sworn members will check the first aid kits at the beginning of their shift to assure that the PPE is intact. The responsibility of checking the other kits will be left to the individual in charge of the area where they are kept. PPE kits will be located in the following areas:


- Duty Office first aid kit
- Designated agency vehicles
- PPE kit in Logistics
- PPE kit in Investigations

PPE kits will consist of:

- Eye and Face protection,
- Heavy duty gloves,
- CPR mask,
- Moist antiseptic towelettes,
- Hand towels,
- Sharps container,
- Biohazard Disposal Bags and ties,
- Latex/Vinyl gloves,
- Biohazard Stickers,
- Liquid impervious gown and shoe covers for use when dealing with gross amounts of blood/body fluids, and
- Standard normal first aid supplies.

#### USE OF PPE

- A. PPE will be used except in rare and extraordinary circumstances where it could compromise the delivery of emergency medical care and public safety. In those cases, the circumstances will be documented by the employee and investigated by the on-duty supervisor, to determine if changes should be made to prevent future occurrences.
- B. Gloves will be worn whenever hand contact with blood or OPIM is anticipated.
- C. Disposable gloves will be replaced as soon as possible if they are contaminated, torn, punctured, or otherwise lose their ability to function as a barrier to exposure.
- D. Disposable gloves will not be reused.
- E. Utility (rubber) gloves used for cleaning may be reused if they are disinfected and have no cracks or tears.
- F. Eye and face protection will be used whenever splashes or spray of blood or body fluids are reasonably anticipated.
- G. CPR masks with one way valves will be used when performing mouth to mouth resuscitation.
- H. Employees assigned to Investigations, or as Evidence Technician, or employees at crime scenes or scene of injured persons, will wear gowns and shoe covers when large amounts of blood or body fluids are present.
- I. Employees will remove all contaminated PPE and place it inside a biohazard disposal bag



prior to clearing the call. The bag will then be placed in a designated container for disposal.

### WORK PRACTICE CONTROLS

Universal precautions will be exercised at all times. **All blood and body fluids must be considered potentially infectious materials.** The following work practice controls are effective immediately to reduce the likelihood of contracting or spreading a communicable disease.

- A. Mouth to mouth resuscitation (without pocket masks) shall be performed as a "last resort" in the management of a non-breathing patient. Not using protection will be documented.
- B. Latex/vinyl/rubber gloves will be worn when exposure to a contamination is likely. Every reasonable effort should be made to minimize exposure to body fluids.
- C. Employees will cover all open wounds with bandages prior to reporting for duty.
- D. As soon as possible, employees will wash their hands after contact with potentially infectious materials even if gloves were worn. Waterless, antiseptic hand cleaner (moist towelettes) will be available in first aid kits and used until the employee can get to hand washing area.
- E. Mucous membranes should be flushed with water immediately or as soon as possible after an exposure.
- F. Uniforms or clothing that becomes contaminated will be removed and the skin areas beneath thoroughly washed.
- G. Gloves should be changed between patients and removed before handling other equipment (i.e., radio, notepad, interior of police vehicle, etc.).
- H. Recapping, bending or breaking of needles is prohibited. Discard needle in an approved sharps container.
- I. In any procedure involving blood or OPIM, all affected employees will use caution so as to minimize splashing, spraying and splattering.
- J. Employees are prohibited from mouth suctioning of blood when dealing with snake or animal bites.
- K. Eating, drinking, smoking or the application of cosmetics and handling of contact lenses are prohibited in areas where potentially infectious material is present. Do not store food in refrigerators used to store blood or OPIM.
- L. Prisoners with visible body fluids on their person shall be transported in separate vehicles from other arrestees and maintained in separate holding areas.
- M. Prisoners with a known communicable disease will **not** be isolated from other prisoners **unless there is a medical reason to do so.**
- N. If custody of the prisoner is relinquished to another agency, the arresting officer will notify the receiving agency that the prisoner has a communicable disease. This notification will only be given to those with a need to know, thus ensuring the privacy and confidentiality of the patient/prisoner.
- O. Strip/body cavity searches will be conducted in accordance with Department policy. During this type of search, latex or vinyl gloves will be worn. Employees will wash their hands as soon as possible after this contact.
- P. Any police equipment that is contaminated must be placed out of service and properly decontaminated prior to reuse, servicing or shipping (i.e. PBT, duty weapon, uniform).
- Q. If it is not possible to clean the equipment before shipping, or the item is of evidentiary value, information regarding the contamination must be communicated to the



representative or other law enforcement agency. Evidence containers should display the biohazard symbol.

#### HOUSEKEEPING

- A. Place all used PPE and contaminated non-evidence items in a biohazard disposal bag and handle according to University policy. Police employees may elect to leave the used PPE either at the hospital or inside an ambulance if appropriate disposal receptacles are available for such use.
- B. All evidence that may be contaminated will be submitted in a biohazard bag or sharps container to the Logistics Unit using the appropriate chain of custody procedure. These items will be placed inside lockers marked with the biohazard symbol.
- C. Contaminated Clothing and Equipment:
  1. Employees whose clothing (i.e. uniforms, personal clothing, body armor) is contaminated should remove it as soon as possible and wash the skin beneath. Place the clothing in a biohazard bag and give to the Logistics Unit who will either dispose of the contaminated uniform according to University policy or have it appropriately cleaned, disinfected, and reissued.
  2. Employees' personal clothing will be either cleaned and returned to the employee or disposed of and replaced by the department.
  3. Employees whose issued equipment is contaminated (i.e. handcuffs, leather belts, etc.) shall clean and disinfect it as soon as possible using the disinfection kit.
    - Use rubber cleaning gloves when cleaning equipment.
    - Use eye and face protection when splashing is likely.
    - Clean the equipment twice and dry thoroughly prior to reuse.
    - Interior of transport vehicles that have been contaminated will be cleaned as soon as possible. Transport vehicles shall be tagged OUT OF SERVICE until they are appropriately disinfected.
- D. Contaminated weapons will be unloaded, placed in a biohazard bag, and given to the Department armorer for cleaning and conditioning. The magazine and street rounds in the weapon should also be included for inspection by the armorer.
- E. A disinfection kit (comprised of a bucket, approved disinfectant, detergent, rubber gloves and paper towels) will be available. After use, the gloves will be cleaned and the water bucket emptied. All used paper towels will be disposed of in approved biohazard containers. Follow procedures for disinfection as described in Section 2, "Decontamination of Surfaces."
- F. Employees finding spilled blood or other body fluid within agency facilities should immediately isolate the affected area (sign posting or barrier tape) and contact Work Control for clean-up. After-hours notification will be handled the same way. Minor spill (droplets) may be cleaned by department employees using the disinfection kit in the duty office.
- G. The Arrest Processing area will be cleaned on a daily basis by cleaning personnel.
- H. Broken glassware that may be contaminated should not be picked up directly with the hands; use mechanical means such as a dust pan and brush, tongs, or forceps. Place contaminated broken glassware in appropriate puncture-resistant sharps containers.
- I. Secondary biohazard disposal bags will be used if the primary bag becomes contaminated or leaks. Do not place excessive amounts of fluids into biohazard disposal bags unless an



absorbing material is also placed into the container. The second bag will be placed and secured over the first bag.

- J. Needles needed as evidence will be packaged into a sharps container and processed according to departmental policy. The Logistics Unit will assure that all needle containers transported to the lab will display the biohazard symbol.
- K. If custody of a prisoner is relinquished to another agency, the arresting officer will notify the receiving agency of any communicable disease the prisoner is known to have. This notification will only be given to those with a need to know, thus ensuring the privacy and confidentiality of the patient/prisoner.
- L. The cell area will be inspected weekly for cleanliness in accordance with agency-established guidelines.
- M. Employees should not reach into sharps containers, as this increases the likelihood of an accidental needle stick or cut.



# Appendix I

## OSHA Bloodborne Pathogens Standard 29 CFR 1910.1030

The standard is available for review and reference on the OSHA web site at:

[http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=1005](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=1005)

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## **Appendix II**

### West Virginia Infectious Medical Waste Rule 64 CSR 56

The rule is available for review and reference on the West Virginia Department of Health and Human Resources' Infectious Medical Waste Program web site at:

<http://www.wvdhhr.org/wvimw/rule.asp>



## Appendix III

### Engineering Control Evaluation Forms

The following links contain sample forms that may be used in evaluating safer engineering controls. These forms are only applicable to certain groups of devices. None of these forms are specifically required by the bloodborne pathogens standard, but they may be useful as guidance documents.

Employers are responsible for setting the evaluation criteria for the devices used in their facilities in accordance with the standard.

#### Sample Forms:

##### **Safety Feature Evaluation Forms**

[http://www.osha.gov/OshDoc/Directive\\_pdf/CPL\\_2-2\\_69\\_APPBForm4.pdf](http://www.osha.gov/OshDoc/Directive_pdf/CPL_2-2_69_APPBForm4.pdf)

##### **Safety Syringes**

[http://www.osha.gov/OshDoc/Directive\\_pdf/CPL\\_2-2\\_69\\_APPBForm5.pdf](http://www.osha.gov/OshDoc/Directive_pdf/CPL_2-2_69_APPBForm5.pdf)

##### **Sharps Disposal Containers**

[http://www.osha.gov/OshDoc/Directive\\_pdf/CPL\\_2-2\\_69\\_APPBForm7.pdf](http://www.osha.gov/OshDoc/Directive_pdf/CPL_2-2_69_APPBForm7.pdf)

##### **Safety Dental Syringes**

[http://www.osha.gov/OshDoc/Directive\\_pdf/CPL\\_2-2\\_69\\_APPBForm11.pdf](http://www.osha.gov/OshDoc/Directive_pdf/CPL_2-2_69_APPBForm11.pdf)

##### **Vacuum Tube Blood Collection Systems**

[http://www.osha.gov/OshDoc/Directive\\_pdf/CPL\\_2-2\\_69\\_APPBForm9.pdf](http://www.osha.gov/OshDoc/Directive_pdf/CPL_2-2_69_APPBForm9.pdf)

##### **IV Access Devices**

[http://www.osha.gov/OshDoc/Directive\\_pdf/CPL\\_2-2\\_69\\_APPBForm6.pdf](http://www.osha.gov/OshDoc/Directive_pdf/CPL_2-2_69_APPBForm6.pdf)

##### **IV Connectors**

[http://www.osha.gov/OshDoc/Directive\\_pdf/CPL\\_2-2\\_69\\_APPBForm8.pdf](http://www.osha.gov/OshDoc/Directive_pdf/CPL_2-2_69_APPBForm8.pdf)

If you have questions about these forms, please contact the Biological & Chemical Safety Officer at 304.696.3461.



## Appendix IV

### Regulated Medical Waste Disposal Procedures

Please read and follow the Waste Disposal Guidelines. Copies may be obtained online from the Safety and Health web site at <http://www.marshall.edu/safety> or by calling 304.696.3461.

#### I. Solid Regulated Medical Waste,

- A. All biological waste from laboratories must be decontaminated prior to disposal.
- B. Proper waste collection, packaging, and transport to an approved autoclave processing area are the responsibility of the person/laboratory generating the waste.
  - 1. Collect disposable, solid materials contaminated by an infectious agent, excluding sharps or broken glass, into an autoclave bag within a sturdy container.
  - 2. Collect contaminated sharps and broken glass in an approved sharps box or biohazard labeled broken glass box with an autoclave bag liner. Do not recap, bend, remove or clip needles. Sharps containers should not be overfilled. When contents reach the full line on the container, close the container and ensure the lid snaps into place.
  - 3. Uncontaminated Pasteur pipettes and broken or unbroken glassware are discarded into containers specifically designed for broken glass disposal, or into heavy-duty cardboard boxes that are closeable. When boxes are full, tape closed, write “broken glass” on the container, and place in hallway for housekeeping to dispose.
  - 4. When  $\frac{3}{4}$  full, gather the top of the bag and loosely tape closed with autoclave tap so that steam can enter the bag during treatment. Liners inside broken glass boxes should be taped as above, then the cardboard lid taped shut.
  - 5. The lab generating the waste must fill out and apply a label to the waste bag or container. Labels are available in the autoclave waste processing room.
  - 6. Taped bags and containers are to be taken to the designated storage area in an approved waste processing autoclave room. Transport of the waste should be via cart with secondary containment to prevent spills.
  - 7. Personnel responsible for operating the autoclave will ensure proper treatment, documentation of weight, and disposal in building's dumpster.

#### II. Liquid Regulated Medical Waste

- A. All biological waste from laboratories must be decontaminated prior to disposal.
- B. Proper waste collection, packaging, and transport to an approved autoclave processing area are the responsibility of the person/laboratory generating the waste.
  - 1. All liquids that contained biological agents will be autoclaved then



disposed in the sanitary sewer. Prior to autoclaving, all liquids containing a biological agent must be decontaminated in a bleach solution for at least 24 hours. The bleach must have at least 5.25% available sodium hypochlorite. Create a 10% bleach to liquid dilution, label the material as containing bleach dilution and the date, and retain in lab for 24 hours.

2. After decontamination, transport containers of liquid to the designated storage area in an approved waste processing autoclave room. Transport of the waste should be via cart with secondary containment to prevent spills.
3. Personnel responsible for operating the autoclave will ensure proper treatment, cooling, and disposal.
4. After autoclaving, reusable lab ware will be washed and returned to the generating laboratory by the personnel responsible for operating the autoclave.

### III. Multi-hazard or Mixed Waste

- A. Avoid generating mixed waste if possible. Keep volume to minimum.
- B. Do not autoclave mixed waste.
- C. When discarding waste containing an infectious agent and radioactive material, inactivate the infectious agent first, then dispose as radioactive waste. Seek advice from the Radiation Safety Officer at 304.696.7366 before beginning inactivation procedures.
- D. Sharps that are contaminated with radioactive materials or hazardous chemicals should be discarded into separate sharps containers labeled with the name of the isotope or chemical.
- E. When discarding waste containing an infectious agent and a hazardous chemical, inactivate the infectious agent first, and then dispose as chemical waste. Seek advice before beginning inactivation procedures. Contact Safety and Health at 304.696.3461 for instructions.

### IV. Animal Tissues, Carcasses and Bedding

- A. Disposal of animal carcasses/tissues and bedding is coordinated through the Animal Resource Facility, in accordance with the ARF Policy and Procedures Manual. For assistance with disposal of animal carcasses/tissues that have not been contaminated with any biological, radiological, or chemical contaminants contact the ARF Director at 304.696.7374.
- B. Disposal of animal carcasses/tissues that are contaminated with infectious substances is coordinated through the personnel responsible for operating waste autoclaves, through the use of a West Virginia DHHR permitted medical waste disposal contractor. Contact Connie Berk at 304.696.7341 for assistance. Note: proposed research generating contaminated carcasses must be reviewed and approved by the Institutional Biosafety Committee.
- C. For assistance with disposal of animal carcasses/tissues that are contaminated with radioactive materials contact the Radiation Safety Officer at 304.696.7366.
- D. For assistance with disposal of animal carcasses/tissues that are contaminated with hazardous chemicals contact the Chemical & Biological Safety Officer at



304.696.3461.

V. Disposal Containers

- A. Each laboratory is responsible for purchasing autoclave bags, sharps containers, and broken glass boxes for the disposal of regulated medical waste.



## Appendix V

### HEPATITIS B VACCINATION DECLINATION

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 the 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.

Employee Name: \_\_\_\_\_  
Print

\_\_\_\_\_  
Signature

MU ID: \_\_\_\_\_

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



## Appendix VI

### INFORMED REFUSAL OF POST-EXPOSURE MEDICAL EVALUATION

I \_\_\_\_\_, am employed by Marshall University. My employer has provided training to me regarding infection control and the risk of disease transmission.

On \_\_\_\_\_, 2\_\_\_\_, I was involved in an exposure incident when

(describe incident)

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My employer has recommended and offered to provide follow-up medical evaluation (including testing for HBV immunity and HIV status) in order to assure that I have full knowledge of whether I have been exposed to or contracted an infectious disease from this incident.

However, I, of my own free will and volition, and despite my employer's offer, have elected not to have a medical evaluation.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Name

\_\_\_\_\_  
Social Security Number

\_\_\_\_\_  
Date

NOTE: Maintain this record for duration of employment plus 30 years.



## Appendix VII

### Useful Web Sites

OSHA Bloodborne Pathogens Standard, 29 CFR Part 1910.1030, 1991

[http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=10051](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10051)

OSHA Needlestick Safety and Prevention Act, April 2001

<http://www.osha.gov/SLTC/bloodbornepathogens/index.html>

List of EPA registered disinfectants

<http://www.epa.gov/oppad001/chemregindex.htm>

Marshall University Safety and Health

<http://www.marshall.edu/>

Marshall University Institutional Biosafety Committee

<http://musom.marshall.edu/biosafety/>