University of Florida

Environmental Health & Safety
Biological Safety Office

2017 Bloodborne Pathogen Program Exposure Control Plan

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Introduction

The UF Bloodborne Pathogen (BBP) Program requires participation **by all employees and non-employees** (students, volunteers, affiliates, etc.) who have occupational exposure to bloodborne pathogens. Non-employees may be required to provide hepatitis B (HBV)vaccination records **prior to** their acceptance into a project or program. For example, College of Medicine provides initial and annual BBP training to medical students but requires that medical students have HBV vaccinations prior to entering their program. Please contact the dean's office for College-specific information.

Responsibility

Department chairpersons and/or **directors** are responsible for ensuring that individual departments and divisions are in compliance with the bloodborne pathogen standard.
Faculty members, **principal investigators** or **laboratory supervisors** are responsible for ensuring that the requirements and procedures outlined in the Exposure Control Plan that are appropriate to the individual work areas are carried out.
Employees are responsible for reporting exposures to their supervisors and complying with all components of the Exposure Control Plan.
The Student Health Care Center (SHCC) on campus and Employee Health in Jacksonville are responsible for providing immunizations, post-exposure follow-up, and keeping medical records for employees. Off-site locations can check with the SHCC.
Environmental Health & Safety (EH&S) is responsible for reviewing and overseeing the Exposure Control Plan. This includes coordinating compliance efforts for UF, acting as a consultant for departments regarding implementation and enforcement, evaluating work practices and personal protective equipment, providing educational materials to departments, tracking employee training, and tracking medical monitoring.

Definitions

Blood

Blood refers to human blood, human blood components, and products made from human blood.

Bloodborne Pathogens

Bloodborne Pathogens are pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV), hepatitis C virus, and human immunodeficiency virus (HIV).

Decontamination

Decontamination is 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

Engineering controls are those controls (e.g. sharps disposal containers, self-sheathing needles) that isolate or remove the bloodborne pathogens hazard from the workplace.

Exposure Incident

An exposure incident is a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties.

Needle-less systems

A device that does not use needles for (A) the collection of bodily fluids or withdrawal of bodily fluids after initial venous or arterial access is stabled, (B) the administration of medications or fluids, or (C) any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps.

Occupational Exposure

Occupational exposure means **reasonably anticipated** skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties.

Other Potentially Infectious Materials (OPIM)

Materials other than human blood are potentially infectious for bloodborne pathogens. These include 1) the following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids; 2) any unfixed tissue or organ (other than intact skin) from a human (living or dead); 3) HIV or HBV-containing cell or tissue cultures, organ cultures, culture medium or other solutions; and 4) blood, organs, or other tissues from experimental animals infected with HIV or HBV.

Parenteral

Parenteral means piercing mucous membranes or the skin barrier through such events as needle sticks, human bites, cuts, or abrasions.

Personal Protective Equipment

Personal protective equipment is specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g. uniforms, pants, shirts or blouses) not intended to function as protection against a hazard are not considered to be personal protective equipment.

Sharps with Engineered Sharps Injury Protections

A non-needle sharp or needle device used for withdrawing body fluids, accessing a vein or artery, or administrating medications or other fluids, with a built-in safety or mechanism that effectively reduces the risk of an exposure incident.

Universal Precautions

Universal Precautions are an approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens (see policy, pg. 10).

Work Practice Controls

Work Practice Controls are those practices that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles).

Training

Scope

1. All employees with reasonably anticipated exposure to bloodborne pathogens shall receive annual training regarding the prevention and control of bloodborne pathogens.
2. New employees with reasonably anticipated exposure to bloodborne pathogens shall receive training upon assignment.
3. Additional training shall be provided to employees as their job duties change. This will be monitored by individual supervisors in consultation with EH&S.

Record-keeping

1. BBP on-line training records are maintained indefinitely by HR and are available through myTraining to the trained individual and the departmental BBP trainers.
2. Departments that conduct their own training sessions instead of using the on-line training session must keep the dates of the training sessions, content outline, attendees list, and presenters for 3 years and submit the list of those trained to the Biosafety Office following each training session.
3. Departmental compliance with the training requirement will be monitored by EH&S.

Content

The training program shall contain the following elements:

1. An accessible copy of the bloodborne pathogen standard.
2. A general explanation of the epidemiology and symptoms of bloodborne diseases.
3. An explanation of modes of transmission of bloodborne pathogens.
4. A review of the exposure control plan.
5. An explanation of the appropriate methods for recognizing procedures and other activities that may involve exposure to blood and OPIM.
6. An explanation of the use and limitations of practices that will prevent or reduce the likelihood of exposure. This includes the appropriate use of personal protective equipment and proper work practices.
7. Information on the types, proper use, location, removal, handling, decontamination, and/or disposal of personal protective equipment.
8. An explanation of the rationale for selecting personal protective equipment.
9. Information on the hepatitis B vaccine, including information on its efficacy, safety, and the benefits of being protected against hepatitis B.
10. An explanation of the post-exposure evaluation in the event of an exposure including reporting mechanisms, time frame for reporting and the medical management that is available.

11. Information on the management of emergencies associated with bloodborne pathogens including persons to contact and precautions.
12. Review of signs, labeling, and containment procedures associated with prevention and control of bloodborne pathogens.
13. Handling, use and disposal of bloodborne pathogens, syringes, safety syringe devices and biomedical wastes. Note that a standalone, comprehensive biomedical waste (BMW) training program has been developed and is available from Environmental Health & Safety.
14. **A post-training test is a required component of the training session**.

Hepatitis B Vaccination

The hepatitis B vaccine has been available since 1982 and studies indicate that immunologic memory remains intact for at least 20 years. Additional studies are on-going to determine whether booster doses of hepatitis B vaccine will be needed in the future but currently booster doses are not recommended.

Individuals with occupational exposure to bloodborne pathogens should receive a 3-dose series of hepatitis B vaccine at 0-, 1-, and 6-month intervals.

The vaccine for hepatitis B shall be offered at no cost to employees identified as at-risk for occupational exposure to bloodborne pathogens.

Vaccine refusal shall be documented by the employee signing the Hepatitis B Vaccine Declination statement on the training and vaccination form. The statement shall be maintained in the employee's medical record.

Refusal of the vaccine is not final and the employee may request vaccination at any future time.

Per CDC recommendations, for individuals with a high risk of exposure (e.g. health care and public safety workers with risk of continuous exposure to blood or OPIM, HBV research laboratory workers) the 3-dose vaccination series should be followed by testing for hepatitis B surface antibody (anti-HBs) to document immunity 1–2 months after dose #3. Anti-HBs testing (e.g. “titering”) is not recommended routinely for previously vaccinated persons who were not tested 1–2 months after their original vaccine series. These individuals should be tested for anti-HBs if they have an exposure to blood or body fluids. If found to be anti-HBs negative, the individual should be treated as if susceptible.

Medical Record-keeping

Employee medical records shall be maintained by SHCC for the duration of employment, plus 30 years.

Exposure Prevention

Universal Precautions

Universal Precautions shall be practiced to prevent employee exposure to blood and other potentially infectious materials (see policy, pg. 10).

Engineering and Work Practice Controls, Personal Protective Equipment

Engineering and work practice controls shall be used to eliminate or minimize employee exposure. Personal protective equipment shall be used when occupational exposure may occur even though the engineering and work practice controls are in place.

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

1. Hand washing facilities shall be provided and maintained with adequate supplies.
2. Contaminated sharps and needles shall be disposed of in puncture resistant, color-coded or labeled, leak-proof containers.
3. Resuscitation devices including mouthpieces or resuscitation bags shall be available for use in areas where the need for resuscitation is predictable.
4. All specimens of blood or OPIM shall be placed in closable, labeled or color-coded, leak-proof containers prior to transport. If contamination of the outside of the primary container occurs, the primary container should be placed in a secondary container which prevents leakage during handling, processing, storage, or shipping.
5. Eye wash stations shall be easily accessible and functional.
6. Syringes, safety syringes and needle-less systems used for direct patient care: Safety devices such as self-sheathing needles and needle-less systems will be used for staff protection whenever possible. These devices will be reviewed by non-managerial staff representatives and chosen by consensus for ease of use and engineering controls.

Work practice controls include general and site-specific safety practices. Examples include:

1. Hand washing shall be performed after removal of gloves and after contact with blood or OPIM.
2. Employees who have exudative lesions or weeping dermatitis shall refrain from handling blood or OPIM until the condition resolves.
3. Contaminated sharps and needles shall not be bent, recapped, or sheared.
4. Eating, drinking, smoking, handling contact lenses, and applying cosmetics are prohibited in work areas where there is a potential for blood or OPIM exposure.
7. Food and drink are prohibited in work areas where there is a potential for blood or OPIM exposure.
8. All procedures involving blood and OPIM shall be performed in such a manner to minimize splashing, spraying, spattering, generation of droplets, or aerosolization of these substances.
9. Mouth pipetting and suctioning are not allowed. Mechanical pipetting devices are used.

Personal protective equipment, including gloves, gowns, laboratory coats, face shields, face masks, eye protection, foot coverings and other items shall be provided to employees, as appropriate, to

prevent exposure to blood or OPIM. These items shall be worn selectively, as needed for the task involved. PPE shall be considered "appropriate" if it does not permit the passage of blood or OPIM through to an employee's skin, mucous membranes or street clothes.

Gloves

1. Disposable gloves shall be worn when it is reasonably anticipated that the employee will have hand contact with blood or OPIM. The gloves shall be replaced when worn, torn or contaminated. They shall not be washed or decontaminated for re-use.
2. Utility gloves may be decontaminated and re-used if not punctured.
3. Latex-free gloves will be provided as necessary.

Masks, eye protection, face shields

Masks in combination with eye protection devices (with side shields) or a chin-length face shield with a mask shall be worn when there is a reasonably anticipated chance of exposure to blood or OPIM through splashes, sprays, spatters or droplets.

Gowns, coats, aprons and other protective coverings

Protective coverings shall be worn depending upon the task and the degree of exposure anticipated. This apparel shall not be taken home for laundering.

Surgical caps, hoods or boots

Head and foot covers shall be worn when gross contamination is reasonably anticipated.

There shall be a designated area in each work setting for the dispensing, storage, cleaning and disposal of PPE. Contaminated PPE that is not immediately decontaminated shall be clearly designated and treated as biohazardous material. All PPE must be removed before leaving the work area.

Closed-toe shoes must be worn at all times in laboratory/clinical areas and all animal housing/procedure areas at the University of Florida.

Housekeeping

Cleaning, Disinfection, and Sterilization Practices

1. All environmental and work surfaces shall be properly cleaned and disinfected on a regular schedule and after contamination with blood or OPIM (see procedures, pg. 11).
2. Appropriate personal protective equipment (e.g. gloves) shall be worn to clean and disinfect blood and OPIM spills.
3. Cleaning, disinfection, and sterilization of equipment shall be performed, as appropriate, after contamination with blood and OPIM (see procedures, pg. 11).
4. Disinfectants must be included on EPA's registered tuberculocide products effective against Mycobacterium tuberculosis list (https://www.epa.gov/sites/production/files/2016-12/documents/list_b_tuberculocide.pdf).

All linens used in UF Health Care Facilities shall be considered to be contaminated and shall be handled using Universal Precautions.

Regulated Waste

1. All biomedical waste shall be managed in accordance with State of Florida Statutes.
2. All biohazardous and/or biomedical waste designated for removal and treatment off-site shall be labeled according to the US DOT rule and Florida statutes.
3. Each work area shall be covered by a written waste plan.
   Refer to Environmental Health & Safety's biomedical waste training program.

Labels

1. Warning labels as specified by the bloodborne pathogen standard shall be used.
2. The labels shall include the biohazard symbol and be fluorescent orange or orange red. Red bags or red containers with a biohazard symbol printed on them may be substituted for labels.
3. Warning labels shall be placed on containers of regulated waste, refrigerators and freezers containing blood or other potentially infectious materials. Other containers used to store, transport or ship blood and OPIM shall also be labeled.
4. Warning labels should be affixed to contaminated equipment and state which portions of the equipment are contaminated.

Exposure Management

Exposure management including post exposure prophylaxis shall be done according to the UF Student Health Care Center (SHCC) Employee Health Policies, in compliance with OSHA standard 1910.1030 and Florida Statute 381.004.

UF employees who have been determined to be at risk shall receive education regarding the management of exposures to bloodborne pathogens that shall include the following:

1. Wound and skin exposures shall be immediately and thoroughly washed with soap and water for 5 minutes. If bleeding, squeeze or milk the wound lightly.
2. Eye and mucous membrane exposures shall be rinsed in running water for 15 minutes.
3. Exposed individuals in Gainesville shall *immediately* call the Needle Stick Hotline (1-866 477-6824) for treatment information. Jacksonville employees should go to the Employee Health Office in Suite 505, Tower 1, from 7 - 12 & 1– 4:00 or to the ER other hours. For exposure incidents more than 1 hour away from Gainesville, go to the nearest medical facility.
4. Immediately after you have been evaluated/treated, notify your supervisor and contact AmeriSys by calling 1-800-455-2079. AmeriSys will assist the employee/supervisor in completing the First Report of Injury or Illness form.
5. The health care provider shall provide a confidential medical evaluation and follow-up of all exposure events to employees. The follow-up shall include these components:
   a) The route and circumstances of the exposure shall be documented.
   b) The identification of the source individual shall be documented unless it is unfeasible or prohibited by state law.
   c) The source individual shall be tested for HIV, HBV, or HCV according to Florida Statutes. Re-testing the source individual is not necessary when that individual is known to be positive for HIV, HBV, or HCV. Those results shall be disclosed to the exposed employee according to Florida statutes.

d) Serologic testing of the exposed employee shall be offered within the provisions of Florida statutes for HIV. If the employee consents to baseline blood collection, but chooses not to be tested for HIV at that time, the sample shall be held for 90 days after the incident, enabling the employee to have HIV testing within the 90 days.
e) Individuals with exposures need to keep their follow up appointments with the SHCC. Typically, follow up appointments for exposure to HCV are at 1 month, 2 months, 3 months, and 6 months. For HIV exposure, the scheduled follow ups are done at 6 weeks, 3 months, and 6 months post-exposure. If HIV treatment is prescribed, medications must be taken for 4 weeks, with a follow up at the SHCC done after two weeks on the medication. Exposure to HBV will involve a vaccine titer determination or re-immunization with the HBV vaccine series.

HIV and HBV Research and/or Production Laboratories

There are special requirements for research laboratories and production facilities engaged in the culture, production, concentration, experimentation and manipulation of HIV and HBV (see procedures, pg. 12). These requirements apply in addition to the other requirements of the BBP rule. These requirements DO NOT apply to clinical or diagnostic laboratories engaged solely in the analysis of blood, tissue or organs.

Assessment: Monitoring, Review and Update

Monitoring

1. Each department chairperson or director shall be responsible for monitoring his or her department's or division's compliance with the bloodborne pathogen standard.
2. EH&S shall assist departments in monitoring compliance with the bloodborne pathogen standard.

Review and Update

EH&S shall review and assess the Exposure Control Plan annually. Input from the departments and from campus-wide monitoring will be used to update this plan as needed.

Universal Precautions Policy

According to the concept of Universal Precautions, all human blood, human blood components, products made from human blood and other potentially infectious materials are treated and handled as if known to be infectious for HIV, HBV and other bloodborne pathogens.

The other potentially infectious materials (OPIM) which require Universal Precautions include: 1) the following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids; 2) any unfixed tissue or organ (other than intact skin) from a human (living or dead); 3) HIV-containing cell or tissue cultures, organ cultures and HIV or HBV-containing culture medium or other solutions; and 4) blood, organs or other tissues from experimental animals infected with HIV or HBV.

The following shall be observed:

Personal Protective Equipment (PPE)

Personal protective equipment shall be used to prevent skin and mucous membrane contact with blood and OPIM. These may include the use of gloves, masks, protective eyewear or face shields and gowns or aprons, as appropriate for the task.

Hand washing

Hands and other skin surfaces shall be washed immediately after contact with blood or OPIM. Hands shall be washed each time gloves are removed.

Sharps

Self-sheathing safety needles or needle-less systems will be used when possible. All sharps (needles, scalpels and lancets) shall be disposed of in labeled, leak-proof, puncture-proof sharps containers. Needles shall not be bent, sheared or recapped. Sharps containers shall be available in the area where sharps are being used.

Dermatitis

Employees who have exudative lesions or weeping dermatitis shall refrain from handling blood or OPIM until the condition resolves.

Housekeeping

All work areas, equipment or materials that may be contaminated with blood or OPIM must be appropriately decontaminated or disposed of as biomedical waste.

Disinfection & Sterilization Procedures

Blood spills

All blood and OPIM spills must be decontaminated with a freshly prepared 1:14 dilution of concentrated household chlorine bleach (final concentration 0.5% sodium hypochlorite). The contaminated area should be covered with paper towels or other absorbent material, then flooded with the disinfectant solution. At least thirty minutes of exposure is required for disinfection. Gloves should be worn during the clean-up procedures. Chlorine bleach can corrode some items and surfaces; items treated with chlorine should be rinsed thoroughly with water (or 70% ethanol) to remove chlorine residue. Other high-level disinfectants (i.e. 2% glutaraldehyde) may be used after consultation with the Biological Safety Office.

Disinfection and cleaning

Work surfaces, biosafety cabinets, and other laboratory equipment may be cleaned and disinfected with a freshly prepared 1:140 dilution of concentrated household bleach. Other EPA approved disinfectants may be used for routine cleaning and disinfection if they are labeled "tuberculocidal." For a list of approved tuberculocidal agents see: https://www.epa.gov/pesticide-registration/list-b-epas-registered-tuberculocide-products-effective-against-mycobacterium

Equipment Decontamination

Potentially contaminated equipment or instrumentation must be disinfected before repair or removal from the laboratory. Please complete and send this form: http://webfiles.ehs.ufl.edu/biohaz_decon.pdf to the biosafety office to document appropriate disinfection on items with biohazard stickers prior to moving them.

If you have questions about a specific item or about the efficacy of a specific disinfectant, please call the Biological Safety Office for assistance.

Sterilization

Objects to be sterilized should first be thoroughly cleaned to remove blood, tissue, food, and other organic residue.

Steam sterilization is the best way to achieve total inactivation of biohazards. If the item may be damaged by heat, pressure, or moisture, or if it is otherwise not amenable to steam sterilization, please call the Biological Safety Office for advice.

Requirements for HIV & HBV Research Laboratories and Production Facilities

This section applies to research laboratories and production facilities engaged in the culture, production, concentration, experimentation and manipulation of HIV and HBV. It does NOT apply to clinical or diagnostic laboratories engaged solely in the analysis of blood, tissues or organs. The requirements listed here apply in addition to other requirements of the Bloodborne Pathogen Program Exposure Control Plan.

Research laboratories shall meet the following criteria:

Standard microbiological practices are used. All infectious waste will be inactivated prior to disposal.

Special practices include:

1. Laboratory doors will be kept closed when work involving HIV or HBV is in progress.
2. Contaminated materials that are to be transported are carried in a durable leak proof, labeled or color coded container that is closed prior to being removed from the work area.
3. Access to the work area shall be limited to authorized persons. Written policies and procedures shall be established whereby only persons who have been advised of the potential biohazard, who meet any special entry requirements and who comply with all entry and exit procedures will be allowed in the work area.
4. Biohazard signs (see Exposure Control Plan for description) shall be posted on all access doors when work involving HIV or HBV is in progress.
5. All activities involving HIV or HBV shall be conducted in biological safety cabinets (BSC) or other physical containment devices within the containment module. No work with HIV or HBV shall be conducted on the open bench. BSCs must be recertified annually.
6. Laboratory coats, gowns, smocks, uniforms or other appropriate protective clothing shall be used in the work area and animal rooms. Protective clothing shall not be worn outside of the work area and shall be decontaminated before being laundered.
7. Special care shall be taken to avoid skin contact with HIV or HBV cultures or contaminated material. Gloves shall be worn when handling infected animals and OPIM.
8. All waste from work areas will be inactivated prior to disposal.
9. Vacuum lines shall be protected with liquid disinfectant traps and HEPA filters that are routinely maintained and replaced as necessary.
10. Hypodermic needles and syringes shall be used only for parenteral injection and aspirations of fluids from laboratory animals and diaphragm bottles. Extreme caution shall be used when handling needles and syringes. Needles should not be bent, sheared or recapped. Needles shall be placed in an appropriate sharps container and inactivated (by steam sterilization or chemically) prior to disposal. Needle-locking syringes should be used. The use of safety sharps is recommended.
11. All spills shall be immediately contained and cleaned up by the appropriate professional staff or personnel trained to work with HIV, HBV or OPIM.
12. A spill or accident that results in an exposure incident shall be immediately reported to the laboratory director or supervisor and the Biological Safety Office.
13. A Biosafety Manual shall be prepared and updated at least annually. Personnel shall be advised of potential hazards, shall be required to read instructions on practices and procedures and shall be required to follow them.

Containment Equipment

1. Certified Biological Safety Cabinets (BSC) or other appropriate combinations of PPE and physical containment devices shall be used with all activities involving HIV or HBV that pose a threat of exposure to droplets, aerosols or spills.
2. BSCs shall be certified when installed and annually thereafter.
3. BSCs must be professionally decontaminated prior to to being moved, repaired or disposed of. If the BSC will be put back into service after being moved or repaired, it must be recertified.

Facilities:

1. The work areas shall be separated from areas that are open to unrestricted traffic flow within the building. Passage through two sets of doors shall be a basic requirement for entry into the work area from access corridors or other contiguous areas. Physical separation of the high containment work area from access corridors or to other areas or activities may also be provided by a double-doored clothes-change room (showers may be included), airlock or other access facility that requires passing through two sets of doors before entering the work area.
2. The surfaces of doors, walls, floors and ceilings in the work area shall be water resistant so that they can be easily cleaned. Penetrations in these areas shall be sealed or be capable of being sealed to facilitate decontamination.
3. Each work area shall contain a sink for washing hands and an eye wash facility. The sink shall be foot, elbow, or automatically operated and located near the exit door.
4. Access doors to the work area or containment module shall be self-closing.
5. An autoclave for decontamination of regulated waste or other materials shall be located within or very near the work area.
6. A ducted exhaust-air ventilation system shall be provided. This system shall create directional airflow that draws air into the work area through the entry area, The exhaust air shall not be recirculated to any other area of the building, shall be discharged to the outside, and shall be dispersed away from occupied areas and air intakes. The proper direction of the airflow shall be verified (i.e., into the work area).

Training Requirements for HIV and HBV research laboratories and production facilities

The following additional training requirements are required for employees in HIV and HBV research laboratories and production facilities:

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

University of Florida Biological Waste Disposal Policy

This policy is intended to provide guidance and ensure compliance with NIH/CDC guidelines, the State of Florida Administrative Code 64E-16, and restrictions of the local County landfill.

Biological Waste Segregation and Handling

The generator must segregate biological waste from other types of waste at the point of origin into the following categories:

1. **Infectious, Potentially Infectious, or Recombinant or Synthetic Nucleic Acid Biological Waste**
    a) any material containing or contaminated with **human pathogens**
    b) any material containing or contaminated with **animal pathogens**
    c) any material containing or contaminated with **plant pathogens**
    d) any material containing or contaminated with **recombinant DNA or synthetic nucleic acid**
    e) laboratory and clinical wastes containing **human or primate blood, blood products, tissue**, and other potentially infectious material (**OPIM**) including:
        i) Used, absorbent materials saturated with blood, blood products, or OPIM
        ii) Non-absorbent, disposable devices that have been contaminated with blood, body fluids or OPIM

- **Laboratory waste containing infectious, potentially infectious, or recombinant or synthetic nucleic acid must be inactivated prior to leaving the facility**. The preferred method is steam sterilization (autoclaving), although incineration or chemical inactivation (e.g. treatment with household bleach) may be appropriate in some cases.
- Storage of all non-inactivated waste in this category is restricted to within the generating laboratory. Infectious or pathogenic waste must be held in a closed/covered biowaste container and should be inactivated at the end of each work day.
- Biological waste containers for material that is infectious/potentially infectious to humans must be labeled with the biohazard symbol.
- Filled or partially filled non-sharps biological waste containers and boxes should not be held for more than 30 days.

2. **Non-infectious Biological Waste**
    This category includes the following
    a) **Used culture ware and molecular biology labware** (tissue culture dishes and flasks, petri dishes, centrifuge tubes, test tubes, pipettes, vials, etc.) from clinical or biomedical labs that is **NOT contaminated** with any of the biological wastes listed in category 1 above.
    "Clean," UNUSED labware is covered by a new policy. See http://www.ehs.ufl.edu/programs/chemrad_waste/lab-chem-waste-mgmt/methods-for-managing-specific-laboratory-wastes/labware/ for details.
    b) **Gloves used in clinical or biomedical labs** that are **NOT contaminated** with any of the biological wastes listed in category 1 above.

c) **Disposable personal protective equipment used in clinical or biomedical labs** that is **NOT** contaminated with any of the biological wastes listed in category 1 above.
d) Unused medical devices.
e) Items **contaminated with blood from animals** not known to, or expected to, contain pathogens.

The material should be placed in the red bag-lined cardboard biological/biomedical waste box (off campus UF facilities should contact the biosafety office at 352 392-1591 for guidance on this category of waste).

Non-infectious biological waste does not require inactivation prior to leaving the facility.

Note that chemically contaminated material (i.e. DNA extraction tubes contaminated with phenol/chloroform, specimen cups containing formalin, chemically contaminated gloves, etc.) must be handled as chemical waste. See the Hazardous Materials Management Facility website http://www.ehs.ufl.edu/programs/chemrad_waste/ or call 352 392-8400 for more information.

3. **Sharps**

- Sharps are instruments that are *intended to cut or penetrate skin* and include **metal** lancets, scalpel blades, needles, or syringe/needle combinations. T**hese must be placed in red, hard plastic sharps boxes**, even if unused. If these sharps are contaminated with infectious, potentially infectious, or recombinant or synthetic nucleic acid materials, the sharps box must be autoclaved before disposal.
  - Close the sharps box when it is ¾ full. Do not store closed sharps boxes for more than 30 days. Sharps boxes are placed into the Stericycle red bag-lined cardboard biological waste box for disposal (off-campus UF facilities should contact the biosafety office at 352-392-1591 for guidance on disposing of sharps boxes).
- Biological waste items in category 1 and 2 above *that can cut, but are not intended to do so*, should be disposed of in a manner that prevents harm; a bag does not provide adequate protection. Examples of such materials include fragile glass, glass slides and cover slips, razor blades, pipettes and pipette tips.
  - You may use a sharps box for these items. Other options include a small rigid box placed in a biohazard bag or a plastic sleeve (that will hold the pipettes together in a bundle) placed in a biohazard bag. Boxed/sleeved and bagged items containing infectious, potentially infectious, or recombinant or synthetic nucleic acid material must be inactivated before disposal. See additional options at http://webfiles.ehs.ufl.edu/Options_Collecting_Bio.pdf

4. **Mixed radioactive/biological waste**

Radioactive waste must be segregated, stored, labeled, and handled per the requirements of the Radiation Control Guide. The biological component of mixed radioactive/biological waste shall be inactivated prior to turning it over to Hazardous Materials Management. Please contact Radiation Control (392-7359) for additional information.

5. **Mixed chemical/biological waste**

The biological component of mixed chemical/biological waste shall be inactivated prior to turning it over to Hazardous Materials Management. Precautions should be taken to prevent the generation and release of toxic chemicals during the inactivation process. In general,

autoclaving is not recommended for this type of waste. Note that the chemical component of the waste may have inactivated the biological component (as in the case of fixative solutions). Please contact Hazardous Materials Management (392-8400) for additional guidance. Chemical waste must be segregated, stored, labeled and handled per the requirements outlined in the Laboratory Chemical Waste Management guide.

6. **Animal Carcasses and Other Animal Material**

- The disposal of animal carcasses and other animal materials and tissue shall be through Animal Care Services or the Veterinary Medicine disposal devices only. These devices are for animal materials only. Please contact Animal Care Services (273-9230) or the EH&S Biosafety Office (392-1591) for further information.
- Material obtained from the Animal Science slaughter facility may be returned there for disposal if not contaminated with infectious, potentially infectious, or recombinant or synthetic nucleic acid material.
- Animal carcasses and other animal material that may contain infectious animal or human pathogens require containment (bags, sealed containers labeled with the biohazard symbol) before moving to Animal Care Services or the Veterinary Medicine disposal facilities.

7. **Human Remains/Tissues**

Human remains/tissues should be returned to the source from which you received them. If that is not possible, contact the Biosafety Office (392-1591) for further guidance.

Packaging and Labeling Biological Waste

Use the following materials to package biological waste. Off campus facilities should contact the Biological Safety Office at 352 392-1591 for guidance.

1. **Corrugated biological/biomedical waste cardboard boxes**

- Sturdy, pre-printed cardboard biowaste boxes displaying the biohazard sign are used as the terminal receptacle. Do not overfill; boxes must weigh less than 55 lb. Tape all seams with clear tape.
- Label the biowaste box with the date put in use, generator's (PI/area supervisor) name, lab location (room number) and phone number. Only properly prepared and labeled corrugated biomedical/biological waste boxes will be accepted for pickup or transport to the biomedical/biological waste storage receptacle (trailers). Waste receptacle personnel are instructed not to accept any other type of containers.
- Health Science Center personnel should call Building Services at 294-5500 for routine scheduled biowaste box delivery, pickup, or problems. Labs not on a routine delivery should call 392-4414 to obtain occasionally needed biowaste boxes. Personnel from outside of the health center may pick them up from room AG133 at the Health Science Center (call 392-5775).

2. **Biohazard bags – used for the initial collection of certain biological wastes**

- The biomedical waste box must be lined with a red biohazard bag printed with a certification stamp indicating that the bag meets the ASTM D 1922 and ASTM D 1709 standards for tear and impact resistance. Stericycle provides liner bags for each box but note that these bags are not autoclavable.

- All biohazard bags must meet impact resistance (165 grams), tearing resistance (480 grams), and heavy metal concentration (<100 PPM total of lead, mercury, chromium and cadmium) requirements. Documentation from the manufacturer regarding these requirements must be available.
- The generator must order and supply their own autoclavable red biohazard bags (e.g. Fisher Scientific #01-828E or VWR #14220 098) for the 30 gallon waste boxes. Autoclavable bags can only be used to line the biomedical waste box if they have the certification stamp noted above.
- Autoclaved red biohazard bags are placed in the Stericycle red bag–lined biowaste box for disposal.
- Do not put liquids into the bags.
- Label the biohazard bag with the date put in use, generator's (PI/area supervisor) name, lab location (room number) and phone number.

3. **Sharps Boxes**

- Closed sharps boxes are labeled with the date closed, generator's (PI/area supervisor) name, lab location (room number) and phone number, and then put into a biomedical/biological waste box for disposal.
- Sharps boxes are free and delivered to health science center personnel (294-5500). Personnel from outside of the health center must pick them up from room AG133 at the Health Science Center (392-5775). Alternatively, they can be ordered from Fisher Scientific or other lab supplies vendor.

Transport

- Transport biohazardous waste outside of the laboratory but in the same facility (i.e. to an autoclave or incinerator) in a closed, leak-proof bag or container; bags must be contained in a leak proof tray.
- Do not leave inactivated waste unattended.
- Laboratory staff needing to transport properly packaged and labeled biowaste boxes to a secure storage/pick up area must protect the boxes from the weather and not leave the boxes unattended.
- A state vehicle, not a personal vehicle, must be used if you drive biohazardous waste to a disposal site on campus. Contact the biosafety office (392-1591) for more information.
- You must transport less than 25 lbs at one time**.**

Training

- All employees who handle biomedical waste shall be trained regarding the proper segregation, handling, packaging, labeling, storage, and treatment of biomedical waste. Biomedical Waste training is included in the annual BBP training, but should be supplemented with site-specific information from the BBP SOPs and any site-specific biomedical waste operating plan.
- According to Florida Statute (Ch. 64E-16 F.A.C.), records of the training session shall be maintained for each employee, along with an outline of the training program. Training records shall be retained for a period of three (3) years. Records of BBP/BMW training taken on-line through myTraining are maintained indefinitely by HR. If the PI or department provides the training, those entities are required to maintain the training record(s) for 3 years and should notify EH&S of those trained.

Packaging and Shipping of Biological Materials

This policy is intended to provide guidance and insure compliance with DOT/IATA/ICAO* regulations.

Relevant Categories:

1. Category A Infectious substances
2. Category B infectious substances
3. Exempt human specimens
4. Regulated medical waste or biomedical waste

Requirements:

In addition to the OSHA BBP training and compliance, anyone involved in the packaging and/or shipping of biological materials, particularly infectious substances, must be trained.

Training is required every 2 years or sooner when there is a change in the regulations.

Email your name and UFID number to
bso@ehs.ufl.edu
and ask to be enrolled in the
Shipping and Transport of Biological Materials training.

* DOT – Department of Transportation
IATA – International Air Transport Association
ICAO – International Civil Aviation Organization

Exposure Incident Guidelines

Report Exposures Immediately

If you have sustained a potential exposure – needle stick, sharps injury or mucous membrane splash, take action as soon as possible. This is especially important in out-patient clinical areas so the source patient is still available for testing. Also, some treatment regimens are most effective if started within a few hours of exposure.

Gainesville Community

A needle stick hotline has been initiated for all UF personnel and students in the Gainesville area to call following a BBP sharps or BBP splash exposure.

NEEDLE STICK HOTLINE number: 1 866 477-6824 (OUCH)

Call 24 Hours a Day, 7 days a week in Gainesville area

Operators from the Student Health Care Center or Shands Nurse Coordinators will answer the line and immediately forward the call to a skilled and knowledgeable medical provider. The medical provider will collect the exposure and source history, arrange for lab work to be drawn, decide on post-exposure treatment if necessary, and recommend follow-up as appropriate. After-hours and on weekends, persons with post exposure will be triaged to the closest Emergency Room for treatment.

Faculty, Staff or Non-Student OPS Employees, Residents, GAs/TAs or Student Assistants: You must report all sharps and splash exposures to your supervisor and immediately call the Needle Stick Hotline. Time is critical! You or your supervisor must then contact AmeriSys at 1-800-455-2079 immediately after your evaluation/treatment has been completed to report your exposure.

UF Students - Not employed by the University: Call the Needle Stick Hotline. Your care must be paid for through your student/personal insurance or by some other means.

Jacksonville Community

UF personnel and residents in Jacksonville who have a BBP exposure between the hours of 7 – 12 and 1– 4:00 should go immediately to the Employee Health Office in Suite 505 of Tower 1 at 8th and Jefferson. Go to the Emergency Room after hours. All follow-up, baseline labs, counseling, and medication reorders are provided by the Employee Health Office (904 244-9576).

After treatment, you must report the incident to AmeriSys at 1-800-455-2079.

Off-Site Locations

If you have an exposure incident on an off-site rotation further than one-hour travel time from UF, seek care at the nearest medical facility. If you are unsure of where to go, call Amerisys at 1-800-455-2079 for information.

Questions?

Re: Needle Stick Hotline: SHCC 352-294-5700

http://shcc.ufl.edu/all-patients/emergencies/needlestick/

Re: BBP Program--- UF Environmental Health & Safety 392-1591

http://www.ehs.ufl.edu/programs/bio/bbp/

Re: UFWC Program- 352 392-4940 ; E-mail: workcomp@ufl.edu.