



**TEXAS A&M UNIVERSITY  
BLOODBORNE  
PATHOGENS EXPOSURE  
CONTROL PLAN (ECP)**

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## **OCCUPATIONAL EXPOSURE PREVENTION SUMMARY**

1. Use Personal Protective Equipment (PPE) appropriately:
  - a. Inspect gloves for tears.
    - i. Inspect gloves for indication of excessive age prior to use; discard if cracking, excessive powder, or color changes are observed.
  - b. Change gloves regularly; gloves are single use. Do not wash or reuse gloves.
2. Use safe work practices:
  - a. Limit access to blood or other potentially infectious materials (OPIM) to trained persons only.
  - b. Treat all blood and OPIM as if known to be infected with bloodborne pathogens.
  - c. Minimize splashing, splattering, and spraying of blood or OPIM.
  - d. Never suction blood or OPIM by mouth.
  - e. Avoid activities that can transfer blood or OPIM on to your skin or mucous membranes.
  - f. Do not store or consume food and beverages in areas that contain blood or OPIM.
  - g. Remove and properly store or dispose of PPE before leaving work area.
  - h. Immediately wash hands after each glove use.
3. Handle sharps safely:
  - a. Do not bend, break or re-cap sharps; if recapping must be done, use a needle capping device.
  - b. Place contaminated sharps in appropriately labeled puncture-proof containers.
  - c. Do not overfill sharps containers.
  - d. Always use a utensil to pick up contaminated sharps (e.g. forceps, hemostats, brush and dust pan, etc.) instead of hands.
  - e. Always assume used sharps and sharps left unattended outside their original packaging are contaminated.
4. When cleaning spills containing broken glass or sharps:
  - a. Always wear personal protective equipment (PPE), including protective eyewear and face protection.
  - b. Remove sharps from spill using a utensil such as forceps, hemostats, brush and dust pan. Never pick up sharps with your bare hands.
  - c. Discard contaminated materials appropriately into an autoclavable sharps container or puncture-resistant biohazard waste container.
    - i. Alternatively, broken glass may be decontaminated using disinfectant and placed in a broken glass container for disposal, without further need to treat as a biohazard.
  - d. Follow spill clean-up procedures (outlined below).
5. When cleaning spills:
  - a. Cover the spill (and an area three times the spill width in diameter) with absorbent material.
    - i. Apply absorbent to the perimeter of the spill to stop the spill from moving.
  - b. Saturate the affected area with freshly prepared 10% bleach (1 part bleach: 9 parts water, made fresh) or another agent-specific EPA-registered disinfectant.
    - i. Gently pour disinfectant onto absorbent covered spill, starting at the

- outermost perimeter and move toward the center in a spiral pattern, covering the entire spill area.
- ii. Do not spray disinfectant onto spill; this will create further aerosol generation, which will increase the size of the spill area and increase risk.
- c. Allow sufficient contact time for the disinfectant, (as specified by product manufacturer) or allow to air dry.
  - i. Collect and discard absorbents and other spill related cleanup materials appropriately.
  - ii. Repeat application of disinfectant a second time to ensure surface disinfection.
  - iii. Refer to the Texas A&M University [Biosafety Manual](#) for final disposition of waste.
  - iv. Disinfect reusable implements and store appropriately.

### **OCCUPATIONAL EXPOSURE RESPONSE SUMMARY**

1. For small injuries (e.g. needle stick, nicks, small cuts or punctures of extremities):
  - a. Immediately wash the injured area with soap and water for at least 15 minutes.
  - b. Where bleeding is minimal, encourage the injury to bleed while washing the wound site.
  - c. Notify PI/Supervisor of exposure incident.
  - d. Report the injury to the Office of Biosafety at [biosafety@tamu.edu](mailto:biosafety@tamu.edu) or 979.862.4549 and in the [TAMU Origami System](#).
2. For mucous membrane or open wound exposure:
  - a. Immediately wash the affected area and surrounding areas of broken skin with soap and water for at least 15 minutes.
  - b. Flush exposed mucous membranes with water only.
  - c. Notify PI/Supervisor of exposure incident.
  - d. Report the injury to the Office of Biosafety at [biosafety@tamu.edu](mailto:biosafety@tamu.edu) or 979.862.4549 and in the [TAMU Origami System](#).
3. For larger wounds, multiple wounds, or other serious injuries with potential exposure:
  - a. Control severe bleeding.
  - b. Call 911 for emergency services.
  - c. Inform responders of the nature of the emergency, including the number of wounded, the nature of wounds and any potential biological exposure.
  - d. If possible, notify PI/Supervisor immediately of exposure incident.
  - e. Report the injury to the Office of Biosafety at [biosafety@tamu.edu](mailto:biosafety@tamu.edu) or 979.862.4549 and in the [TAMU Origami System](#).
4. Follow up with your supervisor and/or your HR department liaison for all other reporting requirements.
  - a. For guidance on reporting an incident or worker's compensation see the Division of Human Resources and Organizational Effectiveness [Worker's Compensation Information](#) webpage.

## **BLOODBORNE PATHOGENS EXPOSURE CONTROL PLAN**

### **PURPOSE**

Texas A&M University is committed to providing a safe and healthy work environment for our university community. This exposure control plan outlines the risk assessment and risk mitigation steps that should be used in conjunction with standard healthcare and safe laboratory practices to minimize exposure to blood or other potentially infectious materials (OPIM) in research, teaching, and operations units. Supervisors should utilize this plan to develop procedures for the receipt, use, handling, and disposal of materials potentially contaminated with bloodborne pathogens to minimize the potential for exposure.

The objective of the Texas A&M Bloodborne Pathogen Exposure Control Plan is to comply with [Texas Administrative Code Title 25 Part 1 Chapter 96](#), and [Texas Health & Safety Code, Chapter 81, Subchapter H](#).

### **SCOPE**

This plan applies to:

- employees, students, and visitors of Texas A&M University who have been assessed as having a reasonably anticipated risk of occupational exposure to blood or OPIM in the course of their activities;
- personnel participating in research, teaching, and testing activities permitted by the Texas A&M University's Institutional Biosafety Committee per [University SAP 24.01.01.M4.01](#) Bloodborne Pathogens Exposure Control at Texas A&M University College Station and Texas A&M University Galveston (TAMUG); and
- employees, students, and visitors of Texas A&M University System members to the extent such individuals are participating in activities falling within the scope of activities covered by the applicable intrasystem agreement.

In this document, any reference to "blood" includes human or non-human primate blood and any reference to "other potentially infectious material" or "OPIM" includes human or non-human primate blood products, cell lines, bodily fluids, or other potentially infectious materials derived from humans or non-human primates. See Appendix II for additional definitions associated with this plan.

### **RESPONSIBILITIES**

Principal Investigators and departmental supervisors are responsible for ensuring their staff complies with the provisions of this plan, including completion of Bloodborne Pathogens training. Each University department is responsible for providing all supplies necessary for compliance with this plan, including, but not limited to personal protective equipment (PPE), soap, agent-specific disinfectants, commercially constructed sharps containers, biohazard labeling materials, and biohazard waste disposal bags. The Office of Biosafety is responsible for providing Bloodborne Pathogens Awareness training, Hepatitis B vaccinations (when requested by program participants), and facilitating access to occupational health services in the event of a potential exposure. The Office of Biosafety is also responsible for providing guidance on acceptable methods for handling and disposal of biohazard waste. Responsibilities and duties are further described in Appendix III.

The ECP is not intended to be an exhaustive or fully comprehensive reference on this subject, but rather a guide for use by technically qualified healthcare workers and researchers. Further advice concerning hazards associated with specific bloodborne pathogens should be obtained through consultation with the Texas A&M University Biosafety Officer and/or Office of Biosafety staff.

All TAMU personnel with a reasonably anticipated risk of exposure to blood or OPIM in the context of their work activities must be familiar with the requirements set forth in this plan and must conduct their operations in accordance with them.

### **EXPOSURE DETERMINATION**

The Texas A&M Bloodborne Pathogens Exposure Control Plan requires an exposure determination for individuals who have exposure to blood or other potentially infectious materials (OPIM) related to their duties. This exposure determination is required to identify job classifications in which persons have occupational exposure risk, regardless of frequency, and is made without regard to the use of personal protective equipment. Supervisors are responsible for reviewing individual job duties regularly to determine if personnel could have a reasonably anticipated potential for exposure to blood or OPIM, for ensuring at risk personnel complete Bloodborne Pathogen awareness training annually, and for reporting all exposure incidents promptly. Persons\* who have been assessed as having a reasonably anticipated risk of occupational exposure to human/non-human primate blood, body fluids, or other potentially infectious materials are required to take Bloodborne Pathogen training and must adhere to the provisions of the Exposure Control Plan.

\*Any person whose job duties pose a risk of potential exposure to bloodborne pathogens shall be included in this standard, regardless of job title.

### **ENGINEERING AND WORK PRACTICE EXPOSURE CONTROLS**

**Universal Precautions** must be observed by all persons to prevent contact with blood or other potentially infectious materials. All blood or other potentially infectious material is considered infectious regardless of the perceived status of the source individual.

**Engineering Controls** reduce individual exposure in the workplace by either removing or isolating the hazard or isolating the person from exposure.

1. Engineering controls include:
  - a. commercially constructed sharps disposal containers
  - b. autoclaves
  - c. disposable laboratory pipetting devices
  - d. biological safety cabinets
  - e. needleless systems
  - f. sharps with engineered sharps injury protection  
(see <http://isips.org/safety-products/>) for a listing of available safety engineered sharps and other injury reducing products)
  - g. readily accessible hand washing or hand sanitizing facilities

NOTE – Sharps containers must withstand autoclaving or incineration. Autoclave cycles used to sterilize

biohazardous wastes must be initially validated and subsequently verified on a regular\* basis using biological indicators. (\*Autoclave cycles used to sterilize medical wastes should be tested twice monthly – unless the autoclave is used less frequently.) Biological safety cabinets must be inspected and certified annually by an approved vendor. Adequate supplies of soap, water and paper toweling must be present to facilitate handwashing. Equipment engineered to reduce injury to personnel, e.g. needleless sharps, may not be used beyond manufacturer’s recommended shelf-life. It is the responsibility of the employing department and/or individual’s supervisor to ensure that all necessary equipment is present and maintained as required.

**Work Practices** establish standard practices by which a task is performed and include:

### 1. Hand washing

- a. Wash hands immediately (or as soon as feasible) after removing gloves or other personal protective equipment.
- b. Wash hands or other exposed skin with soap and water (flush mucous membranes with water only using the nearest eyewash station) as soon as feasible following an exposure incident (such as a splash of blood or OPIM, or a parenteral exposure).
- c. If soap and water are not immediately available, use waterless disinfectants first, then wash hands with soap and water as soon as feasible.

### 2. Sharps Control

Eliminate the use of non-safety-engineered sharps whenever possible. Refer to the [International Sharps Injury Prevention Society’s website](#) for a listing of available safety engineered sharps and other injury reducing products and practices.

- i. Do not bend, recap, remove, shear or purposely break needles or scalpel blades or other disposable small sharps.
  - ii. Discard sharps into a container which is closable, leak-proof, puncture resistant, color-coded and clearly labeled with the biohazard symbol. The container should be no more than one arm’s length away from the point of use.
  - iii. If recapping of a needle or removal of a needle or scalpel is required, then such actions should be performed by the use of a device or a one-handed technique.
  - iv. Recapping needles using a two-handed technique is strictly prohibited.
- b. Dispose of all needles, scalpels or other disposable sharps found unattended and without their original packaging intact as if contaminated.
  - c. Do not pass syringes, scalpels or other sharps directly by hand (person to person). Instead, transfer sharps in a three part process: place the sharp in a previously agreed upon designated area; verbally notify the recipient of the sharp location; the recipient picks up the sharp in a safe manner.
  - d. Place contaminated, reusable sharps in a properly labeled, color-coded, puncture-resistant, leak-proof container until they can be disinfected. Wear appropriate protective equipment when cleaning and disinfecting reusable sharps.

- e. Pick up potentially contaminated broken glassware by mechanical means only. Use forceps, tongs, broom and dustpan, or other similar method to pick up sharps; do not use your bare hands.
- f. Make sharps containers accessible to persons, located as close as is feasible to the immediate area where sharps are being used or in a location where sharps can be reasonably anticipated to be found; maintain upright position throughout use; never overfill; keep closed and properly dispose of when container is no more than three-fourths full.
- g. When moving sharps containers from the area of use or discovery, close containers before moving to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

### 3. Sanitation

- a. Do not eat, drink, smoke or use smokeless tobacco, apply cosmetics or lip balm, take medications, or handle contact lenses in areas where exposure to blood or OPIM may occur.
- b. Take adequate precautions to prevent contamination of cell phones and electronic devices in the laboratory or work area. Be especially careful with writing instruments, notebooks and textbooks.
- c. Do not pipette or suction blood or other potentially infectious materials by mouth.
- d. Perform all procedures in which blood or OPIM are or may be present in such a manner as to minimize splashing, spraying, splattering, and generation of droplets of these materials.

### 4. Specimen Handling

- a. Place blood specimens or specimens containing other potentially infectious materials in a primary container to prevent leakage during specimen collection, handling, processing, storage, transport, or shipping.
- b. Label the primary container used to collect specimens with a biohazard label. If specimens are sent to another facility, a biohazard or color-coded label must be affixed to the outside of the primary container.
- c. Place the primary container within a secure secondary container to prevent leakage during handling, processing, storage, transport, or shipping of the specimen. Label secondary container with a biohazard label.
- d. The secondary container must be puncture proof if a specimen can puncture the primary container.

### 6. Contaminated Equipment

- a. Disinfect contaminated equipment using an appropriate disinfectant and document as disinfected before servicing or shipping for repairs.
  - i. If disinfection is not feasible or possible, contaminated equipment must be clearly labeled with the biohazard label to alert others.

### 7. Housekeeping/Disinfection/Decontamination



- a. Supervisors must ensure that work sites are maintained in a clean and disinfected condition.
- b. Use a freshly prepared 10% (1 part bleach: 9 parts water) solution of household bleach, or another agent-specific EPA-registered disinfectant, at a concentration specified by the manufacturer, for disinfection.
- c. Disinfect all contaminated work surfaces, equipment, tools or other objects after completion of procedures, at the end of the work shift, and immediately or as soon as feasible after any spill of blood or other potentially infectious materials.
- d. Immediately, or as soon as feasible, discard contaminated sharps in containers that are commercially constructed, closable, puncture-resistant, leak proof on sides and bottoms, and appropriately labeled or color-coded.
- e. Regularly clean and disinfect reusable containers used to hold contaminated materials.
- f. Implement a regular schedule for inspection and decontamination of equipment, surfaces, containers, etc. potentially contaminated with blood or OPIM.

#### 8. Regulated Waste Disposal

- a. Supervisors will provide red/orange biohazard bags and/or biohazard labels.
- b. Properly dispose of all regulated waste in accordance with federal, state, county, & local requirements. For guidance, contact the Office of Biosafety at [biosafety@tamu.edu](mailto:biosafety@tamu.edu) or refer to the Biohazardous Waste Disposal Guidelines in the [Texas A&M University Biosafety Manual](#).
- c. Place regulated solid waste (other than sharps) in a lidded primary waste container lined with a red/orange biohazard bag and labeled with the biohazard symbol.
- d. Place sharps into a commercially manufactured closable sharps container (this is also considered a primary waste container) identified with the biohazard symbol.
- e. Decontaminate the outside surface of the primary waste container with an appropriate disinfectant. Transport to the autoclave for steam sterilization using a validated autoclave cycle.
- f. Upon completion of the cycle, place a treatment sticker ([Appendix IV](#)) on the autoclaved biohazard bag and place the bag into a secondary container (black trash bag or cardboard box), prior to final disposal.
- g. Both primary and secondary containers must be constructed to contain all contents, prevent protrusion of contents and prevent leakage of fluids during handling, storage and transport.

#### 9. Laundry Procedures

**At no time should contaminated lab coats or other reusable personal protective garments be taken for laundering in a personal or public laundry facility, without adequate disinfection of the garment prior to removal.**

- a. Handle laundry contaminated with blood or OPIM as little as possible, with minimal agitation. Persons should wear gloves when handling potentially contaminated laundry. Contaminated laundry should not be sorted or rinsed in public areas.

- b. Place laundry contaminated with blood or OPIM in a leak-proof container labeled with either the biohazard symbol or identified as requiring compliance with Universal Precautions, prior to transport.
- c. Handle laundry contaminated with blood or OPIM as follows:
  - i. Wash laundry with hot, soapy water and bleach in a mechanical washing machine located within the work area or disinfect laundry by autoclaving at the work site.
  - ii. Properly disinfected laundry may then be sent to a commercial facility for laundering.
- d. The use of disposable lab coats/gowns is an acceptable alternative to coats that require laundering. Contaminated, disposable lab coats/gowns shall be disposed of as regulated waste.

NOTE: Department Heads, Supervisors, and employees all share the responsibility of complying with these practices.

10. Personal Protective Equipment (PPE) is the protection of last resort after all possible engineering and work controls have been implemented and mitigation of risk has not been achieved.

- a. Provision and care of PPE:
  - i. The supervisor must provide PPE at no cost to the individual.
  - ii. The supervisor must provide an alternative to latex gloves to employees who are allergic.
  - iii. The supervisor must repair or replace PPE at no cost to the individual.
  - iv. The supervisor must clean and launder reusable PPE and dispose of contaminated, disposable PPE at no cost to the individual.
  - v. The supervisor must provide barrier devices for use in emergency CPR, as applicable.
  - vi. The supervisor must choose PPE based on the anticipated exposure to blood or OPIM. PPE is considered appropriate only if it is fluid resistant and will not permit blood or OPIM to pass through or reach the individual's clothing, skin, eyes, mouth, or other mucous membranes under normal conditions of use, and for the duration of time which it is used.
- b. Personal protective equipment includes:
  - i. gloves – latex and nitrile options
  - ii. reusable lab coat/surgical gowns/coveralls
  - iii. single-use disposable lab coats/surgical gowns/coveralls
  - iv. respirators
  - v. surgical masks
  - vi. face shields

- vii. eyewear with side shields
- viii. aprons
- ix. shoe covers
- x. head covers/hoods/surgical caps

c. Persons must:

- i. Wear all required protective equipment in any potential exposure situation, e.g. following an accident or during any procedure with a potential for splashing, spraying or splattering of blood or OPIM.
  - Gloves must be worn when there is a reasonable likelihood of contact with blood and OPIM, during all vascular access procedures, when there is contact with mucous membranes and non-intact skin, when handling surfaces or items contaminated with blood or OPIM.
- ii. Remove garments that become penetrated by blood or OPIM immediately or as soon as feasible.
- iii. Replace all garments that are torn or punctured, or that lose their ability to function as a barrier to bloodborne pathogens.
- iv. Remove all personal protective equipment before leaving the work area.
  - Never wear gloves in common areas, especially when opening doors and riding elevators.
- v. Place all reusable garments in the appropriate designated area or container for storage, cleaning, or decontamination.
- vi. Place all disposable garments in an appropriate biohazard waste disposal container.

d. All persons using PPE must observe the following precautions:

- i. Wash hands immediately or as soon as feasible after removing gloves or other PPE.
- ii. Remove PPE after it becomes contaminated and before leaving the work area.
- iii. Never wash or disinfect disposable gloves for reuse. Replace disposable gloves as soon as practical if they become contaminated or as soon as feasible if they are torn, punctured or when their ability to function as a barrier is compromised.
- iv. Disinfect utility gloves for reuse if their integrity is not compromised; discard utility gloves if they show signs of cracking, peeling, tearing, puncturing, or deterioration.
- v. Wear appropriate face and eye protection when splashes, sprays, spatters, or other droplets of blood or OPIM pose a hazard to the eyes, nose, or mouth.
- vi. Remove immediately, or as soon as feasible, any garment contaminated with blood or OPIM, in such a way as to avoid contact with the contaminated outer surface.

Supervisors and workers must examine and maintain engineering and work practice controls within the work center on a regular schedule, and should use [Appendix I - Assessment Tool](#) to assess compliance

with the Exposure Control Plan.

### **HEPATITIS B VACCINATION PROGRAM**

1. All persons having been assessed as having a reasonably anticipated risk of occupational exposure to blood or other potentially infectious materials are offered the Hepatitis B vaccine at no cost to the individual, under the supervision of a licensed physician or licensed healthcare professional.
2. Vaccination is offered after bloodborne pathogen training is completed and within 10 working days of their initial assignment to work unless: 1) the individual has previously received the complete hepatitis series, and 2) antibody testing has revealed that the individual is immune, or 3) the vaccine is contraindicated for medical reasons.
3. Persons shall complete a Hepatitis B vaccination acceptance/declination response form upon completion of initial Bloodborne Pathogens training. Documentation of Hepatitis B acceptance/declination is maintained.
  - a. Individuals who decline the initial Hepatitis B vaccination offer can elect to receive the vaccination at a later date, at no cost to them, and shall be provided with instructions on how to proceed at the time of the request.
4. Booster doses are not typically necessary or provided for Hepatitis B and are only offered following confirmation of titer (see 5). However, any necessary booster doses of the vaccine shall be made available and provided at no cost to the individual.
5. Individuals at high risk of occupational exposure to Bloodborne Pathogens (ex. hepatitis researchers, health care workers, student health service clinicians, phlebotomists, laboratory workers and others routinely handling blood or blood products) will be tested for serological response (immunity) to Hepatitis B following vaccination or at time of hire as recommended by the CDC Advisory Committee on Immunization Practices.

### **POST EXPOSURE EVALUATION AND REPORTING**

1. In the event of an occupational exposure to blood or OPIM, the individual is responsible for reporting the incident to their supervisor and to the Office of Biosafety. The supervisor must verify the completion of a DWC-1 First Report of Injury form within 24 business hours of the injury event. Forms and instructions are found here: the Division of Human Resources and Organizational Effectiveness [Worker's Compensation Information](#)

If an exposure to blood or OPIM has occurred, initiate first aid (clean and flush the wound, flush eyes or other mucous membrane, etc.) and report the incident to a supervisor. To the extent possible, the following information should be documented:

- a. Route(s) of exposure and the circumstances related to the incident.
- b. Identification and documentation of the source individual, unless the employer establishes that identification is infeasible or prohibited by state or local law;
  - i. The source individual's blood should be tested as soon as feasible and after consent if obtained in order to determine HBV, HCV or HIV infectivity. If consent

is not obtained, the employer should establish that legally required consent cannot be obtained. When the source individual's consent is not required by law, the source individual's blood, if available, shall be tested and the results documented. The results of testing of the source individual are confidentially made available to the designated health care provider in order to guide recommendations. The exposed individual will be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

- c. The exposed individual is offered laboratory testing, post exposure prophylaxis, medical treatment, and follow up visits in accordance with the current recommendations of the U.S. Public Health Service.
    - i. If the individual consents to baseline blood collection, but does not consent to HIV testing, the sample should be preserved for at least 90 days. If, within 90 days of the exposure incident, the individual elects to have the sample tested, such testing should be done as soon as possible.
  - d. The individual is given appropriate counseling concerning infection status, results and interpretations of tests, and precautions to take during the period after the exposure incident. The individual is informed about what potential illnesses can develop and to seek early occupational health evaluation and subsequent treatment.
2. A written opinion is obtained from the healthcare professional when an individual is sent to obtain the Hepatitis B vaccine or when an individual is evaluated after an exposure incident. In order for the healthcare professional to adequately evaluate the individual, the healthcare professional is provided with:
- a. a copy of the Texas A&M University Exposure Control Plan;
  - b. a description of the exposed individual's duties as they relate to the exposure incident;
  - c. documentation of the route(s) of exposure and circumstances under which the exposure occurred;
  - d. results of the source individual's blood tests (if available); and
  - e. occupational health records relevant to the appropriate treatment of the individual, including Hepatitis B vaccination status.
3. Healthcare professionals should provide in the written report to the employer:
- a. whether the Hepatitis B Vaccine is indicated;
  - b. whether the individual received the vaccine;
  - c. the evaluation following an exposure incident;
  - d. whether the individual was informed of the results of the evaluation;
  - e. whether the individual was told about any medical conditions resulting from exposure to blood or other potentially infectious materials that require further evaluation or treatment (all other findings or diagnosis shall remain confidential and shall not be included in the written report); and
  - f. whether the healthcare professional's written opinion was provided to the individual

within 15 days of completion of the evaluation.

4. All incidents involving potential exposure to blood or OPIM, including those in the context of research, teaching, and testing activities permitted by the Texas A&M University Institutional Biosafety Committee, must also be reported to the Office of Biosafety. Personnel will be referred to a contracted Occupational Health Provider (or an Emergency Department on evenings and weekends) for a confidential occupational health consultation.
  - a. Notify the Office of Biosafety by calling 979-862-4549 or email [biosafety@tamu.edu](mailto:biosafety@tamu.edu). Complete the Office of Biosafety Incident Report Form. The following information should be documented using the Office of Biosafety's Incident Report Form:
    - vii. date of injury;
    - viii. department or work area where the incident occurred; and
    - ix. explanation/description of how the incident occurred.
  - b. Office of Biosafety staff will review reports of Bloodborne Pathogen exposure incidents to determine:
    - i. whether engineering controls were in use at the time of incident;
    - ii. whether the established, standard work practices were being followed;
    - iii. a description of any sharps device(s), if any, involved in the incident (including type and brand);
    - iv. protective equipment or clothing that was used at the time of the exposure incident (gloves, eye protection, etc.);
    - v. location of the incident; i.e. where the incident occurred and/or what body part was involved;
    - vi. the procedure being performed when the incident occurred; and
    - vii. the status of all involved individuals' training with regards to bloodborne pathogen exposure.

## **HAZARD COMMUNICATION**

1. Labels:
  - a. Warning labels must be placed on all specimens or containers or bags of regulated waste, freezers and refrigerators containing blood or OPIM, sharps disposal containers, and on containers used to store, transport or ship blood or OPIM, unless:
    - i. In a setting where universal precautions are always observed;
    - ii. Regulated waste has been decontaminated.
  - b. Labels are required to be a universal label and symbol printed in fluorescent orange or orange-red with letters and symbols in contrasting color;
  - c. Labels should be placed directly on containers in such a manner to prevent their loss or unintentional removal.
  - d. Red bags or red containers may be substituted for labels.

2. Signs:
  - a. Employer must post signs at the entrance to work areas bearing the following information:
    - i. The Biohazard symbol;
    - ii. Name of the infectious or hazardous agent;
    - iii. Special requirements for entry;
    - iv. Name and contact information for responsible person(s).
  - b. Signs must be fluorescent orange/red, or predominantly so, with lettering and symbols in contrasting color.

## **TRAINING**

1. Texas A&M University hiring departments and supervisors are responsible for ensuring that:
  - a. All persons who have been assessed as having a reasonably anticipated risk of occupational exposure are made aware of and complete the requirement for bloodborne pathogen (BBP) training prior to initial assignment to tasks where occupational exposure to blood or OPIM may occur.
  - b. Training must be provided at no cost to the employee and during working hours.
  - c. Training materials should be in a format that is appropriate in content and vocabulary to the educational level, literacy and language of persons.
  - d. All persons with an unchanged assessment complete the requirement for annual BBP refresher training within one year of the previous training.
  - e. Additional BBP training is given as new information is acquired or job duties change.
2. BBP training shall include an explanation of the following:
  - a. Title 25 Health Services, Part 1 Texas Department of State Health Services, Chapter 96 Bloodborne Pathogen Control;
  - b. OSHA Bloodborne Pathogen Final Rule;
  - c. Epidemiology and symptoms of diseases caused by the primary bloodborne pathogens;
  - d. Modes of transmission of bloodborne pathogens;
  - e. How to recognize tasks and activities that may place persons at risk of exposure to blood or other potentially infectious materials, including what constitutes an exposure incident;
  - f. The Texas A&M Bloodborne Pathogens Exposure Control Plan and a means by which the individual can obtain a copy of the written plan;
  - g. The use and limitations of work practices, engineering controls, and personal protective equipment;
  - h. The individual's responsibility to reduce the risk of exposure to bloodborne pathogens for himself/herself and for co-workers;
  - i. The Hepatitis B vaccine, including information on efficacy, safety, method of

- administration, and the benefits of vaccination and that the vaccine and vaccination will be offered at no charge to the individual;
- j. Information on post-exposure evaluation and follow-up procedures;
  - k. An explanation of the signs and labels and/or color coding required;
  - l. Sharps injury reporting procedures;
  - m. Procedures to follow in an emergency involving blood or OPIM, including person(s) to contact;
  - n. Procedures to follow if an exposure incident occurs, including person(s) to contact; and
  - o. An opportunity to ask questions of individuals who are knowledgeable of bloodborne pathogens and of the training materials
3. A training record shall include the following information:
- a. name of person completing training
  - b. date of training completion
  - c. identification of the training course

### **RECORDS**

Individual occupational health records are maintained in accordance with 29 CFR 1910.1020. Occupational health records include:

- a. name and UIN of individual
- b. copy of the individual's hepatitis B vaccination status, including dates of hepatitis B vaccination
- c. copy of all results of examinations, surveillance and follow up procedures
- d. copy of the healthcare professional's written opinion

The employer shall ensure that employee occupational health records are kept confidential and maintained for the duration of employment plus 30 years, in accordance with 29 CFR 1910.1030 (h)(2)(ii).

Training records are maintained on-line in TrainTraq for 3 years from the date on which the training occurred in accordance with 29 CFR 1910.1020.

### **ANNUAL REVIEW**

Texas A&M University will review the exposure control plan annually, update when necessary, and document when the review is accomplished. Annual review of the Texas A&M Bloodborne Pathogen Exposure Control Plan is the responsibility of the Director of Biosafety/ Biosafety Officer:

Dr. Jessica Bourquin, Biosafety Officer and Director of Biosafety

Signature  Date 12/28/2022





**APPENDIX I. ASSESSMENT TOOL**

Below is an assessment tool that Hiring Departments and Supervisors may use to ensure that their groups are in compliance with the Texas Administrative Code Title 25 Part 1 Chapter 96, the Texas Health and Safety Code, Chapter 81, Subchapter H, and the OSHA Bloodborne Pathogens Standard. Self-assessment audits are recommended on an annual basis.

|           | <b>Assessment Questions</b>  | <b>Yes</b> | <b>No</b> |
|-----------|--|------------|-----------|
| <b>1</b>  | Do you have a copy of the Texas A&M Exposure Control Plan?   |            |           |
| <b>2</b>  | Persons at occupational risk for potential exposure to bloodborne pathogens are identified   |            |           |
| <b>3</b>  | Persons comply with universal precautions when performing duties   |            |           |
| <b>4</b>  | Persons appropriately use engineering controls in the work center  |            |           |
| <b>5</b>  | Persons employ safe work practices in performance of duties  |            |           |
| <b>6</b>  | Handwashing facilities equipped with soap and a hand drying method are readily accessible in the work centers  |            |           |
| <b>7</b>  | Persons regularly wash their hands, especially after glove removal   |            |           |
| <b>8</b>  | Persons deposit contaminated sharps in biohazard containers immediately after use  |            |           |
| <b>9</b>  | Persons seal and dispose of biohazard containers when $\frac{3}{4}$ full   |            |           |
| <b>10</b> | Persons do not eat, drink, apply cosmetics or lip balm, smoke, or handle contact lenses in the work area   |            |           |
| <b>11</b> | Food and beverages are stored separately in employee break areas, not in areas where blood or other potentially infectious materials are stored, used or handled |            |           |
| <b>12</b> | Persons do not mouth pipette/suction blood or bodily fluids  |            |           |
| <b>13</b> | Persons place specimens in leak resistant biohazard labeled containers upon collection   |            |           |
| <b>14</b> | Persons place specimens in biohazard labeled leak-proof secondary containers for shipment  |            |           |
| <b>15</b> | Persons properly disinfect equipment before servicing or shipping for repairs or place a biohazard label to declare the equipment remains contaminated           |            |           |
| <b>16</b> | Persons wear designated fluid resistant personal protective equipment/attire appropriate for the task at hand  |            |           |
| <b>17</b> | Persons place contaminated personal protective equipment in appropriate receptacles  |            |           |
| <b>18</b> | Persons maintain a clean work environment at all times   |            |           |
| <b>19</b> | Persons use an EPA approved germicide according to manufacturer's directions to clean and disinfect facilities and equipment                                     |            |           |
| <b>20</b> | Persons know safe procedures for cleanup of contaminated materials, including broken glass and other sharp objects   |            |           |

**APPENDIX I. ASSESSMENT TOOL, CONT.**

|           |  |  |  |
|-----------|--|--|--|
| <b>21</b> | Persons demonstrate approved methods of transport and disposal of regulated waste by placing regular waste, special waste, and/or biohazardous waste in appropriate containers and transporting the waste according to the <a href="#">Texas A&amp;M University Biosafety Manual</a> |  |  |
| <b>22</b> | When necessary to transport biologically contaminated laundry, wet laundry is placed in leak resistant bags or containers and transported in secondary leak-proof, properly labeled containers   |  |  |
| <b>23</b> | Each individual knows their documented Hepatitis B vaccination status  |  |  |
| <b>24</b> | Persons know when, how and to whom to report potential exposure incidents  |  |  |
| <b>25</b> | An individual occupational exposure protocol is practiced in accordance with U.S. Public Health Service  |  |  |
| <b>26</b> | Persons are provided initial training in person and receive annual refresher training on the Bloodborne Pathogens Program, including the Exposure Control Plan   |  |  |
| <b>27</b> | Recording and reporting occupational exposures are conducted in accordance with the TDSHS Bloodborne Pathogens Standard  |  |  |
| <b>28</b> | Occupational health and training records are maintained in accordance with TDSHS Bloodborne Pathogens Standard   |  |  |

Issues of non-compliance with the Exposure Control Plan may be reported to the Office of Biosafety ([biosafety@tamu.edu](mailto:biosafety@tamu.edu)) for assistance and follow-up.

## **APPENDIX II. DEFINITIONS**

For the purpose of the plan, the following definitions apply:

- **BLOOD:** blood, blood components, and products made from blood of humans or non-human primates.
- **BLOODBORNE PATHOGENS:** pathogenic microorganisms and/or viruses that can cause diseases in humans, including, but not limited to, hepatitis B virus (HBV), hepatitis C virus (HCV), and human immunodeficiency virus (HIV).
- **CONTAMINATED:** the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.
- **CONTAMINATED SHARPS:** any contaminated object that can penetrate the skin or any other part of the body and result in an exposure incident including, but not limited to, needles, scalpels, lancets, broken glass, broken capillary tubes, exposed ends of dental wires, dental knife, drill or bur.
- **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.
- **EMPLOYER:** an employer is considered to be the Texas A&M department or unit in which the individual is employed.
- **ENGINEERING CONTROLS:** devices that isolate or remove the bloodborne pathogens hazard from the workplace, including sharps disposal containers, self-sheathing needles, and safer medical devices, such as sharps with engineered sharps-injury protection and needless systems.
- **EXPOSURE INCIDENT:** a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials resulting in exposure to bloodborne pathogens or other potentially infectious materials.
- **NON-HUMAN PRIMATE:** Refers to the order Primate, suborder Haplorhini, infraorder Simiiformes, which include species ranging from New World monkeys, to Old World monkeys and apes. Specific species of concern include Old World (family Cercopithecidae) macaque monkeys, including rhesus macaques, pig-tailed macaques, and cynomolgus monkeys
- **OCCUPATIONAL EXPOSURE:** a reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials resulting from the performance of an individual's duties.
- **OTHER POTENTIALLY INFECTIOUS MATERIALS (OPIM):** include the following: 1) body fluids: 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 and blood; 2) any unfixed tissue or organ (other than intact skin) derived from humans or non-human primates, or 3) HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and blood, organs, or

other tissues from experimental animals infected with HIV or HBV or other BBPs.

- **PERSONAL PROTECTIVE EQUIPMENT (PPE):** specialized clothing or equipment worn by an individual for protection against a hazard. This includes gloves, eyewear, face masks, respirators, lab coats, and gowns. 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.
- **REGULATED MEDICAL WASTE:** defined in 49 CFR 173.134 as any waste or reusable material derived either from the medical treatment of an animal or human, OR from biomedical research, which includes the production and testing of biological products.
- **STERILIZE:** the use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.
- **UNIVERSAL PRECAUTIONS:** an approach to infection control. According to the concept of universal precautions, all blood and certain body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens.

### **APPENDIX III. RESPONSIBLE PARTIES AND DUTIES**

#### **Office of Biosafety**

- Maintain the Bloodborne Pathogens (BBP) Exposure Control Plan (ECP).
- Annually review and update the BBP ECP as necessary.
- Annually review and update training materials as necessary.
- Provide subject matter guidance for persons completing Bloodborne Pathogens training.
- Maintain records for training, immunization election, immunization services, sero-surveillance and post-exposure evaluation and care, as required by the BBP ECP.
- Upon being notified of a potential bloodborne pathogens exposure incident, assist individuals in receiving post-exposure evaluation and treatment, as appropriate.

#### **Employing Departments**

- Ensure their staff complies with the provisions of the Bloodborne Pathogens Exposure Control Plan.
- Ensure adequate resources necessary for compliance with the Bloodborne Pathogens Exposure Control Plan are available, including, but not limited to, personal protective equipment (PPE), disinfectant, commercially constructed sharps containers, and biohazard waste disposal and labeling materials.

#### **Supervisors**

- Ensure that all employees, students, and visitors receive Bloodborne Pathogens training within 10 days of beginning work in which there is a potential for exposure to blood and/or other potentially infectious materials (OPIM), and annually thereafter, for as long as the potential for exposure to blood or OPIM remains a part of their duties.
- Verify visitors to University facilities have completed Bloodborne Pathogens training equivalent to that outlined in the BBP ECP, prior to participating in activities having any potential for exposure to blood or OPIM.
- Follow and ensure that their employees, students, volunteers, and visitors adhere to proper work practices, follow universal precautions, wear appropriate PPE, and follow proper waste disposal procedures as outlined in the BBP ECP.
- Ensure completion of a Texas Department of Insurance – Division of Workers' Compensation (DWC-1) First Report of Injury or Illness form for any injury or exposure incident reported to them by their employees.
- Report all known or potential personnel exposure to blood or OPIM to the Office of Biosafety.
- Use the assessment tool in Appendix I to ensure their groups are in compliance with the Texas Administrative Code Title 25 Part 1 Chapter 96, the Texas Health and Safety Code, Chapter 81, Subchapter H, and the OSHA Bloodborne Pathogens Standard.

#### **Occupational Health Provider**

- Review and provide feedback to the Office of Biosafety regarding the Bloodborne Pathogen Exposure Control Plan, as appropriate.
- Provide occupational health services as required.

- Promptly provide results of occupational health consult(s) and any occupational health testing performed, related to Bloodborne Pathogen exposure events, to the Office of Biosafety.

### **Individuals**

- Adhere to proper work practices, follow universal precautions, wear appropriate PPE, and follow proper waste disposal procedures as outlined in the BBP ECP.
- Complete Bloodborne Pathogen training at the time of initial assignment to tasks where risk of occupational exposure to Bloodborne Pathogens may take place and complete annual BBP refresher training within one year of the previous training, if the initial assessment for BBP exposure remains unchanged.
- Report all known or potential personal exposure to bloodborne pathogens promptly to their supervisor and to the Office of Biosafety.

**APPENDIX IV. TREATED BIOLOGICAL WASTE STICKER**

\*\*\*\*\*ATTENTION\*\*\*\*\*

**It's the law!**

In accordance with the Texas Administrative Code:

**Autoclaved biohazardous waste must be labeled with a TREATED sticker and placed in a black trash bag prior to disposal.**



**Treated in Accordance with  
25 TAC 1.136**

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**Biosafety Program  
Texas A&M University**  
750 Agronomy Road, Suite 2701 1186 TAMU  
College Station, TX 77843-1186  
979-862-4549: Fax 979-862-3176  
<http://rcb.tamu.edu>

To request additional TREATED stickers, contact the Office of Biosafety 979-862-4549 or [biosafety@tamu.edu](mailto:biosafety@tamu.edu)





# STOP STICKS!

For further guidance, see: <http://rcb.tamu.edu/biohazards/resources/biohazardous-waste-handling>



**Are you disposing of the SHARP correctly?**

- Have an approved SHARPs disposal container within arm's reach of every SHARPs use area.
- DO NOT dispose of any SHARP in regular trash.
- DO NOT cut, break, bend or remove needles prior to syringe disposal.
- Close & dispose of SHARPs containers when 2/3 full.
- Properly and safely autoclave SHARPs containers prior to disposal.

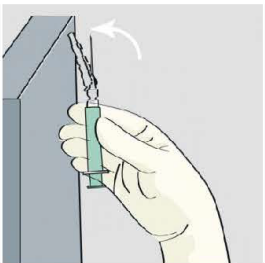
**Do you NEED to use SHARPs in your program?**

- SHARPs include needles of all types (cannula, IV, hypodermic), scalpels, or razor blades.
- Regularly assess the need for continued use of SHARPs in the lab.
- Review new products that can reduce or eliminate SHARPs in the lab.
- SHARPs also include broken glass, metal or bone.
- Have clean up tools available for broken sharps.

**Immediately report all needle sticks or sharps injuries to your supervisor**

**Can any SHARP used be eliminated or replaced?**

- Can a process be redesigned to remove the need for SHARPs?
- Can any SHARPs be replaced with safer sharps (e.g. self-sheathing needles, retractable needles)?
- Can any glass object be replaced with a plastic version (such as pipettes)?



**Are you using the SHARP safely?**

- If recapping of needles cannot be avoided, use a one-handed scoop method or a safety device for recapping needles.
- Never remove or replace needle caps by mouth.
- Use scalpel handles and blade changing blocks when working with scalpels.
- Properly restrain animals before using sharps for injections or procedures.



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TAMU Biosafety Last Reviewed Fall 2019