



**THE UNIVERSITY OF TEXAS AT BROWNSVILLE
and
TEXAS SOUTHMOST COLLEGE**

**Biomedical Research Program
BLOODBORNE
PATHOGENS EXPOSURE
CONTROL MANUAL**

Biological, Chemical, and Radiation Safety Committee

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UTB/TSC Bloodborne Pathogens Exposure Control Plan

In accordance with Health and Safety Code, Chapter 81, Subchapter H, and analogous to OSHA Bloodborne Pathogens Standard, the following exposure control plan exists:

1 Minimum standard

This exposure control plan is adopted as the minimum standard to implement the Bloodborne Pathogens Exposure Control Plan (BBPECP) required in Health and Safety Code, §81.304. The Biology Committee will provide oversight.

2 Applicability

These minimum standards apply to a governmental unit that employs employees who provide services in a public or private facility providing healthcare-related services, including a home-healthcare organization, or otherwise have a risk of exposure to blood or other material potentially containing bloodborne pathogens. This plan is provided by the department to be analogous with Title 29 Code of Federal Regulation §1910.1030, Occupational Safety and Health Administration (OSHA), Bloodborne Pathogens Standard as specified in Health and Safety Code, §81.304.

3 Review

The BBPECP will be reviewed and updated biennially by the Biology Committee, then documented when this is accomplished.

4 Exposure determination

The Texas Department of Health Bloodborne Pathogens Exposure Control Plan requires employers to perform an exposure determination for employees who have occupational exposure to blood or other potentially infectious materials. The exposure determination is made without regard to the use of personal protective equipment. This exposure determination is required to list all job classifications in which employees have occupational exposure, regardless of frequency. All laboratory and shop instructors fall into this classification.

5 Implementation schedule and methodology

The Biology and Nursing Departments will outline a schedule and method of implementation for the various elements of the exposure control plan.

6 Compliance methods

Universal precautions are observed to prevent contact with blood or other potentially infectious materials. All blood or other potentially infectious materials are considered infectious regardless of the perceived status of the source individual.

- Engineering and work practice controls are used to eliminate or minimize exposure to employees. Where occupational exposure remains after institution of

these controls, personal protective equipment is used. Examples include safety design devices, sharps containers, needle-less systems, sharps with engineered sharps injury protection for employees, and passing instruments in a neutral zone.

- Supervisors and workers examine and maintain engineering and work practice controls within the work center on a regular schedule.
- Handwashing facilities are available to the employees who incur exposure to blood or other potentially infectious materials. The department's plan requires that these facilities be readily accessible after incurring exposure.
- If handwashing facilities are not feasible, the employer is required to provide either an antiseptic cleanser in conjunction with a clean cloth or paper towels, antiseptic towelettes, or waterless disinfectant. If one of these alternatives is used, then the hands are to be washed with soap and running water as soon as feasible.
- After removal of personal protective gloves, employees wash hands and any other potentially contaminated skin area immediately or as soon as feasible with soap and water. If employees incur exposure to their skin or mucous membranes, then those areas are washed with soap and water or flushed with water as appropriate as soon as feasible following contact.

7 Needles

Contaminated needles and other contaminated sharps are not bent, recapped, removed, sheared, or purposely broken. The department's plan may allow an exception to this if no alternative is feasible and the action is required by a specific medical procedure. If such action is required, then the recapping or removal of the needle must be done by the use of a device or a one-handed technique.

8 Contaminated sharps discarding and containment

Contaminated sharps are discarded immediately or as soon as feasible in containers that are

- closable
- puncture resistant
- leakproof on sides and bottom
- biohazard labeled or color-coded

During use, containers for contaminated sharps are

- easily accessible to personnel
- located as close as is feasible to the immediate area where sharps are being used or can be reasonably anticipated to be found (e.g. laundries)
- maintained upright throughout use
- not allowed to overfill
- routinely replaced

9 Work area restrictions

In work areas where there is a reasonable likelihood of exposure to blood or other potentially infectious materials:

- Employees are not to eat, drink, apply cosmetics or lip balm, smoke, or handle contact lenses.
- Food and beverages are not to be kept in refrigerators, freezers, shelves, cabinets, or on counter/bench tops where blood or other potentially infectious materials are present.
- Mouth pipetting/suctioning of blood or other potentially infectious materials is prohibited.
- All procedures are conducted in a manner to minimize splashing, spraying, splattering, and generation of droplets of blood or other potentially infectious materials.

10 Collection of specimens

- Specimens of blood or other potentially infectious materials are placed in a container, which prevents leakage during the collection, handling, processing, storage, transport, or shipping of the specimens.
- The container used for this purpose is labeled with a biohazard label or color-coded.
- Specimens of blood and other potentially infectious body substances or fluids are usually collected within a hospital, doctor's office, clinic, or laboratory setting.
- Labeling of these specimens should be done according to the classes' specimen collection procedure.
- This procedure should address placing the specimen in a container that prevents leakage during collection, handling, processing, storage, transport, or shipping
- In classes where specimen containers are sent to other facilities and/or universal precautions are not used throughout the procedure, a biohazard or color-coded label should be affixed to the outside of the container.
- If outside contamination of the primary container occurs, the primary container is placed within a secondary container, which prevents leakage during handling, processing, storage, transport, or shipping of the specimen.
- The secondary container is labeled with a biohazard label or color-coded.
- Any specimen that could puncture a primary container is placed within a secondary container, which is puncture proof.

11 Contaminated equipment

Equipment which may become contaminated with blood or other potentially infectious materials is examined prior to servicing or shipping and decontaminated as necessary unless the decontamination of the equipment is not feasible. Employers place a biohazard label on all portions of contaminated equipment that remain to inform employees, service representatives, and/or the manufacturer, as appropriate.

12 Personal protective equipment

- Personal protective equipment is chosen based on the anticipated exposure to blood or other potentially infectious materials.

- The protective equipment is considered appropriate only if it does not permit blood or other potentially infectious materials to pass through or reach the employee's clothing, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of the time which the protective equipment is used. Examples of personal protective equipment are gloves, eyewear with side shields, gowns, lab coats, aprons, shoe covers, face shields, and masks. All personal protective equipment is fluid resistant.
- All personal protective equipment is cleaned, laundered, and disposed of appropriately.
- All garments which are penetrated by blood are removed immediately or as soon as feasible and placed in the appropriate container.
- All personal protective equipment (other than lab coats) is removed prior to leaving the work area and stored in the designated receptacle.
- Gloves are worn where it is reasonably anticipated that employees will have hand contact with blood, other potentially infectious materials, non-intact skin, and mucous membranes.
- Latex-sensitive employees are provided with suitable alternative personal protective equipment.
- Disposable gloves are not to be washed or decontaminated for re-use and are to be replaced as soon as practical when they become contaminated or as soon as feasible if they are torn, punctured, or when their ability to function as a barrier is compromised.
- Utility gloves may be decontaminated for re-use provided that the integrity of the glove is not compromised. Utility gloves are discarded if they are cracked, peeling, torn, punctured, exhibit other signs of deterioration, or when their ability to function as a barrier is compromised.
- Masks in combination with eye-protection devices, such as goggles, glasses with solid side shield, or chin-length face shields, are required to be worn whenever splashes, spray, splatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, or mouth contamination can reasonably be anticipated.
- Surgical caps or hoods and/or fluid-resistant shoe covers or boots are worn in instances when gross contamination can reasonably be anticipated.

13 Housekeeping

- Employers shall ensure that their respective worksites are maintained in a clean and sanitary condition. The employer shall determine and implement an appropriate written schedule for cleaning and method of decontamination based upon the location within the facility, the type of surface to be cleaned, type of soil present, and tasks or procedures being performed in the area.
- All contaminated work surfaces are decontaminated after completion of procedures, immediately or as soon as feasible after any spill of blood or other potentially infectious materials, and at the end of the work shift.
- Protective coverings (plastic wrap, aluminum foil, etc.) used to cover equipment and environmental surfaces are removed and replaced as soon as feasible when

they become contaminated or at the end of the work shift. All bins, pails, cans, and similar receptacles are inspected and decontaminated regularly by laboratory personnel.

- Any broken glassware that may be contaminated is not picked up directly with the hands. The whiskbroom and dustpan in the spill kit may be used.

14 Regulated waste disposal

- All contaminated sharps are discarded as soon as feasible in sharps containers located as close to the point of use as feasible in each work area.
- Regulated waste other than sharps is placed in appropriate containers that are closable, leak resistant, labeled with a biohazard label or color-coded, and closed prior to removal. If outside contamination of the regulated waste container occurs, it is placed in a second container that is also closable, leak-proof, labeled with a biohazard label or color-coded, and closed prior to removal.
- All regulated waste is properly disposed of by initiating a work order turning it in to EH&S.

15 Laundry procedures

Although soiled linen may be contaminated with pathogenic microorganisms, the risk of disease transmission is negligible if it is handled, transported, and laundered in a manner that avoids transfer of microorganisms to patients, personnel, and environments. Rather than rigid rules and regulations, hygienic and commonsense storage and processing of clean and soiled linen is recommended. The methods for handling, transporting, and laundering of soiled linen are determined by the agency's written policy and any applicable regulations. The laundry is cleaned as designated by the academic department.

16 Hepatitis B vaccine

- All employees who have been identified as having occupational exposure to blood or other potentially infectious materials are offered the hepatitis B vaccine, at no cost to the employee, at the Student Health Services Center.
- The vaccine is offered after bloodborne pathogens training and within 10 working days of the employee's initial assignment to work unless they have previously received the complete hepatitis B vaccination series, antibody testing has revealed that they are immune, or the vaccine is contraindicated for medical reasons. Employees receive the vaccine at Student Health Services.
- Employees who decline the Hepatitis B vaccine sign a declination statement (see appendix A).
- Employees who initially decline the vaccine but who later elect to receive it may then have the vaccine provided at no cost.

17 Post-exposure evaluation and follow-up

If an exposure incident occurs, the employee involved reports it to their supervisor and to classroom instructors. All students and employees who incur an exposure incident are offered a confidential medical evaluation and follow-up as follows:

- The route(s) of exposure and the circumstances related to the incident are documented and filed for subsequent reviews.
- The source individual is identified and documented, unless the employer can establish that identification is infeasible or prohibited by state or local law. After obtaining consent, unless law allows testing without consent, the blood of the source individual should be tested for HIV/HBV infectivity, unless the employer can establish that testing of the source is infeasible or prohibited by state or local law.
- The results of testing of the source individual are made available to the exposed employee, who is also informed about the applicable laws and regulations concerning disclosure of the identity and infectivity of the source individual.
- The employee is offered the option of having his/her blood collected for testing of the employee's HIV/HBV serological status. The blood sample is preserved for at least 90 days to allow the employee to make a decision on this. If the employee decides before then that the testing will be conducted, then testing is done as soon as feasible according to recommendations of the US Public Health Service.
- The employee is given appropriate counseling concerning infection status, results and interpretations of tests, and precautions to take during the period after the exposure incident.
- The employee is informed about what potential illnesses can develop and advised to seek early medical evaluation and subsequent treatment.

The Director of the Student Health Services is designated to assure that the policy outlined here is effectively carried out and maintains records related to this policy.

18 Interaction with healthcare professionals

A written opinion is obtained from the healthcare professional who evaluates employees of UTB/TSC after an exposure incident. In order for the healthcare professional to adequately evaluate the employee, the healthcare professional is provided with:

- a copy of the UTB/TSC exposure control plan
- a description of the exposed employee's duties as they relate to the exposure incident
- documentation of the route(s) of exposure and circumstances under which it occurred
- results of the source individual's blood tests (if available)
- medical records relevant to the appropriate treatment of the employee

Written opinions are obtained from the healthcare professional in the following instances:

- when the employee is sent to obtain the hepatitis B vaccine
- whenever the employee is sent to a healthcare professional following an exposure incident

Healthcare professionals are instructed to limit their written opinions to:

- whether the Hepatitis B vaccine is indicated
- whether the employee has received the vaccine

- the evaluation following an exposure incident
- whether the employee has been informed of the results of the evaluation
- whether the employee has been 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)
- whether the healthcare professional's written opinion is provided to the employee within 15 days of completion of the evaluation

19 Use of biohazard labels

Agencies should have a procedure that determines when biohazard-warning labels are to be affixed to containers or placed in color-coded bags. The procedure should include the types of materials that should be labeled as biohazard material. These materials may include regulated waste, refrigerators, and freezers containing blood or other potentially infectious materials, and other containers used to store, transport, or ship blood or other potentially infectious materials.

20 Training

Training for all employees is conducted prior to initial assignment to tasks where occupational exposure may occur. All employees also receive annual refresher training. This training is to be conducted within one year of the employee's previous training.

Training for employees is conducted by a person knowledgeable in the subject matter and includes an explanation of the following:

- Bloodborne Pathogen Control
- OSHA Bloodborne Pathogen Final Rule
- Epidemiology and symptomatology of bloodborne diseases
- Modes of transmission of bloodborne pathogens
- UTB/TSC's exposure control plan (i.e. points of the plan, lines of responsibility, how the plan will be implemented, where to access plan, etc.)
- Procedures that might cause exposure to blood or other potentially infectious materials at this facility
- Control methods used at UTB/TSC to control exposure to blood or other potentially infectious materials
- Personal protective equipment available at UTB/TSC (types, use, location, etc.)
- Hepatitis B vaccine program at UTB/TSC
- Procedures to follow in an emergency involving blood or other potentially infectious materials
- Procedures to follow if an exposure incident occurs, to include US Public Health Service Post Exposure Prophylaxis Guidelines
- Signs and labels used at UTB/TSC
- An opportunity to ask questions of the individual conducting the training

21 Record-keeping

According to OSHA's Bloodborne Pathogens Standard, the Director of Student Health Services maintains medical records.

Appendices

A. Hepatitis B Vaccine Declination Statement

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

Signature _____ Date _____

B. Assessment tool checklist

- The exposure control plan is located in each work center
- Occupational risks for bloodborne pathogens exposure are identified
- Employees comply with universal precautions when performing duties
- Employees use engineering controls appropriately in the work center
- Employees employ safe work practices in performance of duties
- Handwashing facilities are readily accessible in the work centers
- Employees regularly wash their hands, especially after glove removal
- Employees deposit contaminated sharps in biohazard containers immediately after use
- Employees change filled biohazard containers when full
- Employees do not eat, drink, apply cosmetics or lip balm, smoke, or handle contact lenses in the work area
- Food and beverages are not kept in close proximity to blood or bodily fluids
- Employees do not mouth pipette/suction blood or bodily fluids
- Employees place specimens in leak-resistant containers after collection
- Employees place specimens in biohazard leak-proof containers for shipment
- Employees properly decontaminate equipment before servicing or shipping for repairs or place a biohazard label to inform others that the equipment remains contaminated
- Employees wear the designated fluid-resistant personal protective equipment or attire appropriate for the task at hand
- Employees place the contaminated personal protective equipment in the appropriate receptacles
- Employees maintain a clean environment at all times
- Employees use an EPA approved germicide properly to decontaminate and clean the facility and equipment
- Employees know the safe procedure for adhering to policy
- Employees place wet laundry in leak-resistant bags or containers and transport used laundry in biohazard leak-proof containers
- Each employee knows his or her documented hepatitis B vaccine status
- Employees know where and to whom to report exposure incidents
- An employee occupational exposure protocol is practiced in accordance with US Public Health Service
- Employees are oriented and receive annual training to the exposure control plan
- Recording and reporting of occupational exposures is conducted in accordance with OSHA's Bloodborne Pathogens Standard
- Medical and training records are maintained in accordance with OSHA's Bloodborne Pathogens Standard