

**UNIVERSITY OF HOUSTON
ENVIRONMENTAL HEALTH AND RISK MANAGEMENT
BIOLOGICAL SAFETY PROGRAM**

BLOODBORNE PATHOGENS EXPOSURE CONTROL PLAN

In accordance with Texas Administrative Code; Health and Safety Code, Chapter 81, Subchapter H, and analogous to OSHA Bloodborne Pathogens Standard, the University of Houston has implemented the following Exposure Control Plan:

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. Job classifications that include employees who have potential occupational exposure risks are laboratory personnel, custodial personnel, nutrition services personnel, medical personnel, law enforcement personnel, plumbing personnel, solid waste personnel, wellness center personnel and fire and safety personnel.

IMPLEMENTATION AND METHODOLOGY

Compliance Methods

Universal/standard 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, needleless systems, sharps with engineered sharps injury protection for employees, passing instruments in a neutral zone, etc.

Supervisors and workers examine and maintain engineering and work practice controls within the work environment on a regular schedule.

Handwashing facilities are available to the employees who may incur exposure to blood or other potentially infectious materials.

If handwashing facilities are not available, the employer is required to provide either an antiseptic cleanser in conjunction with a clean cloth/paper towels, antiseptic towelettes or waterless disinfectant. If these alternatives are used, then the hands are to be washed with soap and running water as soon as possible.

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 possible following contact.

Needles

Contaminated needles and other contaminated sharps are not bent, recapped, removed, sheared, or purposely broken. The exception to this is 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.

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, and 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; are not allowed to overfill; and replaced routinely.

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.

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 unless universal/standard precautions are used throughout the procedure and the specimens and containers remain in the facility. 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 department's specimen collection procedure. This procedure should address placing the specimen in a container, which prevents leakage during the collection, handling, processing, storage, transport, or shipping of the specimens. In departments where specimen containers are

sent to other institutions 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 the handling, processing, storage, transport, or shipping of the specimen. The secondary container is labeled with a biohazard label or color-coded.

Any specimen, which could puncture a primary container, is placed within a secondary container, which is puncture proof.

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. University personnel place a biohazard label on all portions of contaminated equipment that remain to inform employees, service representatives, and/or the manufacturer, as appropriate.

Personal Protective Equipment

All personal protective equipment used is provided without cost to employees. 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 include 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 by the employer. All repairs and replacements are made by the employer.

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 is removed prior to leaving the work area and placed 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.

Housekeeping

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 (e.g., 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 on a regularly scheduled basis.

Any broken glassware which may be contaminated is not picked up directly with the hands.

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 in accordance with federal, state, county, and local requirements.

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 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 departmental written policy and any applicable regulations.

Please use a service that specifically cleans lab coats or contaminated laundry. The following are suggested:

Imperial Linen Service	(713) 223-1365
Pilgrim Cleaners	(713) 394-9665
MW Cleaners	(713) 667-7474

Use of Biohazard Labels

These materials may include but are not limited to, 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 should have biohazard-warning labels or be placed in color-coded bags.

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. Training is offered by the University every spring and fall semester or upon departmental requests.

Training for employees includes an explanation of the following:

- Chapter 96. Bloodborne Pathogen Control
- OSHA Bloodborne Pathogen Final Rule;
- epidemiology and symptoms of bloodborne diseases;
- modes of transmission of bloodborne pathogens;
- University'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 which might cause exposure to blood or other potentially infectious materials at the workplace;
- control methods which are used at the University to control exposure to blood or other potentially infectious materials;
- personal protective equipment available at the University (types, use, location, etc.);
- hepatitis B vaccine program at the University;
- procedures to follow in an emergency involving blood or other potentially infectious materials;
- procedures to follow if an exposure incident occurs, to include U.S. Public Health Service Post Exposure Prophylaxis Guidelines;
- post exposure evaluation and follow up;
- signs and labels used at the University; and,
- an opportunity to ask questions with the individual conducting the training.

Pre Exposure 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 the expense of the employee's department.
- The vaccine is offered after bloodborne pathogens training and within 10 working days of their initial assignment to work unless the employee has previously received the complete hepatitis B vaccination series, antibody testing has revealed that the employee is immune, or that the vaccine is contraindicated for medical reasons.
- Employees receive the vaccine at the University Health Center.
- Employees who decline the Hepatitis B vaccine sign a declination statement (see attached copy).
- Employees who initially decline the vaccine but who later elect to receive it may then have the vaccine provided to the employee at the expense of the employee's department.

Post Exposure Evaluation and Follow up

When an employee incurs an exposure incident, the employee must report to the Environmental Health and Risk Management's Claims Coordinator (713-743-8024) for referral to a physician. All employees who incur an exposure incident are offered a confidential medical evaluation and follow up as follows:

- Documentation of the route(s) of exposure and the circumstances related to the incident.
- Identification and documentation of the source individual, 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 with the employee informed about the applicable laws and regulations concerning disclosure of the identity and infectivity of the source individual.
- The physicians will examine the employee and order blood collection 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 decide if the blood should be tested for HIV serological status. If the employee decides prior to that time that the testing will be conducted, then testing is done as soon as feasible.
- The employee is offered post exposure prophylaxis in accordance with the current recommendations of the U.S. 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 to seek early medical evaluation and subsequent treatment.
- The Environmental Health and Risk Management department will assure that the policy outlined here is effectively carried out and maintain records related to this policy.

Interaction with Healthcare Professionals

A written opinion is obtained from the healthcare professionals 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 University's 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 the exposure occurred;
- results of the source individual's blood tests (if available); and,
- medical records relevant to the appropriate treatment of the employee (if available).

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

- when the employee is sent to obtain the Hepatitis B vaccine, or
- 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 which require further evaluation or treatment (all other findings or diagnosis shall remain confidential and shall not be included in the written report); and,
- whether the healthcare professional's written opinion is provided to the employee within 15 days of completion of the evaluation.

Recordkeeping

Departments identify personnel with the potential for occupational exposure to bloodborne pathogens and other infectious materials and submit that information to the Biosafety Manager (713-743-1200) in the Environmental Health and Risk Management Department. The Department of Environmental Health and Risk Management maintains training, vaccination, and occupational exposure records for the University. Individual medical records of occupational exposures are maintained by the respective medical personnel that provided post exposure evaluation and follow-up.

University of Houston

EXPOSURE TO BLOODBORNE PATHOGENS - HEPATITIS B VACCINE

NAME: _____

TITLE: _____

DEPARTMENT: _____

TELEPHONE: _____ E-MAIL: _____

Please check the appropriate box, fill all information requested, and if appropriate sign the declination statement.

- I received the Hepatitis B vaccine at the University of Houston Health Center
Date of vaccination: _____
- I received the Hepatitis B vaccine at a previous place of employment
Name of Institution: _____
Date of vaccination: _____
- I am declining the Hepatitis B vaccine offered by the University of Houston (please read and sign the declination statement)

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 _____

Please fill out one form for each staff member and fax or mail this form to the Environmental Health and Risk Management Department, Attention Biological Safety Manager, Mail Code 1005, Fax # 713-743-8035