



TEXAS TECH UNIVERSITY™

Operating Policy and Procedure

OP 60.24: Bloodborne Pathogen Protection Program

DATE: July 5, 2022

PURPOSE: The purpose of this Operating Policy/Procedure (OP) is to protect workers from anticipated exposure to bloodborne pathogens, which include Hepatitis B Virus (HBV) and Human Immunodeficiency Virus (HIV). The purpose of this plan is to provide safe work practices to prevent exposure of Texas Tech University employees whose job descriptions necessitate performing tasks that would result in occupational exposure to bodily fluids.

REVIEW: This OP will be reviewed in September of even-numbered years by the Assistant Vice President for Environmental Health & Safety (EHS) with substantive revisions forwarded through the Associate Vice President for Research to the Vice President for Research & Innovation and the Provost and Senior Vice President.

POLICY/PROCEDURE

1. References

[Title 29 Code of Federal Regulations § 1910.1030 \(29CFR1910.1030\)](#) and Centers for Disease Control [Biosafety in Microbiological and Biomedical Laboratories](#)

2. Introduction

Exposure to blood and other bodily fluids can lead to numerous clinical diseases. Hepatitis B Virus (HBV) and the Human Immunodeficiency Virus (HIV) are examples of pathogens that can be transmitted via blood and other bodily fluids. These agents are referred to as bloodborne pathogens; because they can cause serious illness or death, operational guidelines must be followed to protect workers against exposures. This program includes the use of “universal precautions” for all human blood and other potentially infectious materials (OPIM).

3. Scope and Application

The Bloodborne Pathogen Exposure Control Plan (ECP) covers all Texas Tech University employees who could be “reasonably anticipated” to be exposed to human materials, such as bodily fluids, while conducting their job duties. The ECP details procedures for identifying occupational exposures to bloodborne pathogens, work practice controls, personal protection, housekeeping requirements, training, and medical surveillance.

The requirements of this program apply to all Texas Tech University employees, contract workers, and employees of firms working at locations where Texas Tech University has management control. However, the program does not address employees willingly responding to emergencies by choice (e.g., giving CPR involving blood and other bodily fluids). In addition,

this program does not address employees whose immune systems are currently and/or previously impaired because of the HIV or from other causes.

4. Terms and Definitions

Most of the terms and definitions in this program are taken from [29CFR1910.1030](#), “Occupational Exposure to Bloodborne Pathogens,” 1996.

- a. “Blood” means human blood, human blood components, and products made from human blood.
- b. “Bloodborne pathogens” means pathogenic microorganisms that are present in human blood that can cause disease in humans. These pathogens include, but are not limited to, HBV and HIV.
- c. “Bloodborne Pathogen Exposure Control Plan” (ECP) means the Texas Tech University written program to prevent employee exposure to bloodborne pathogens in the workplace.
- d. “Contaminated” means the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.
- e. “Engineering controls” means controls (e.g., sharps disposal containers, self-sheathing needles) that isolate or remove the bloodborne pathogens hazards from the workplace.
- f. “Exposure incident” means a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that result from the performance of an employee’s duties.
- g. “FDA” means Food and Drug Administration.
- h. “HBV” means Hepatitis B Virus.
- i. “HIV” means Human Immunodeficiency Virus.
- j. “Occupational exposure” means reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee’s duties.
- k. “Other potentially infectious materials” (OPIM) include human and non-human primate semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any bodily fluid that is visibly contaminated with blood, and all bodily fluids in situations where it is difficult or impossible to differentiate between bodily fluids; any unfixed tissue or organ (other than intact skin) from a human; and 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 procedures.
- l. “Personal protective equipment” (PPE) is specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts, or blouses) not intended to function as protection against a hazard are not considered to be personal protective equipment.

- m. “Regulated waste” means liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.
- n. “Sharps” means any object that can penetrate the skin including, but not limited to, hypodermic needles, scalped blades, microtome blades, razor blades, lancets, dental scalers, broken glass, pipettes, capillary tubes, and exposed ends of dental wires.
- o. “Universal precautions” is an approach to infection control. According to the concept of universal precautions, all human blood and other potentially infectious materials are presumed to be infectious and treated as such.
- p. “Work practice controls” means controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles by two-handed technique).

5. Responsibilities

- a. The primary responsibilities of department heads and chairs are to:
 - (1) Be familiar with this program and its contents and objectives;
 - (2) Support the program and oversee its implementation;
 - (3) Implement proper administrative and engineering controls in the work area; and
 - (4) Develop a department plan for any activity involving infectious material.
- b. Responsibilities of managers and supervisors are to:
 - (1) Know where blood or other potentially infectious materials are used, produced, stored, or handled in any manner in the department;
 - (2) Be familiar with this program and its contents and objectives;
 - (3) Identify employees who may be at risk of exposure and implement this program. Risk is determined by reviewing each task related to fulfilling an employee’s job description that could result in an exposure. Departments are expected to consult with EHS if there is a question regarding risk of employee exposure.
 - (4) Review and update the exposure information annually or more often, if necessary, to accommodate changes in an employee’s task;
 - (5) Ensure employees are trained before beginning specific tasks involving blood or other infectious materials;

- (6) Identify and develop safety procedures when work activities involve risk of exposure to blood and other infectious materials. Procedures for spills, waste disposal, decontamination, and accident response procedures must be developed by each department.
 - (7) Determine which employees are at risk of occupational exposure and must be offered the Hepatitis B vaccination series and require them to enroll in the Occupational Health Program;
 - (8) Provide the correct personal protective equipment at no cost to the employee who works with blood or bloodborne pathogens; and
 - (9) Monitor the work area for changing tasks and make corrections as needed.
- c. Texas Tech University employees will:
- (1) Be familiar with this program;
 - (2) Conduct each task in accordance with their training or department SOP;
 - (3) Follow established university procedures;
 - (4) Complete the required training before starting work;
 - (5) Participate in the Occupational Health Program;
 - (6) Use PPE and other protective devices as required; and
 - (7) Report to their manager or supervisor any deficiencies and any exposures.
- d. Environmental Health & Safety is responsible for:
- (1) Developing and implementing the ECP;
 - (2) Giving guidance on how to package waste contaminated with blood or other infectious materials;
 - (3) Providing general training to departments or supervisors as requested;
 - (4) Making training available online;
 - (5) Conducting work-site surveys and informing departments of results;
 - (6) Approving the department's SOP;
 - (7) Advising employees of the proper PPE; and
 - (8) Administering the Occupational Health Program for university employees.

6. Employee Exposure Determination

- a. Category A - Moderate to High Risk Exposure
 - (1) Research and clinic technicians and laboratory personnel who work with bloodborne pathogens, human blood, or OPIM;
 - (2) Law enforcement officers;
 - (3) Athletic trainers;
 - (4) EHS staff required to handle, clean up, and dispose of blood or OPIM; and
 - (5) Selected custodial staff that clean up blood or OPIM inside of buildings.
- b. Category B - Low to Moderate Risk Exposure
 - (1) Plumbers responsible for opening sewage lines;
 - (2) Child care assistants; and
 - (3) Employees responsible for laundry cleaning.
- c. Category C - No Risk to Low Risk Exposure
 - (1) Office staff;
 - (2) All other custodians that do not fall under Category A; and
 - (3) Employees whose job description defines no task related to exposure.
- d. Category D - Unclassified Risk Exposure

This exposure will be determined by EHS on a case-by-case basis.

7. Employee Protection

- a. If the determination is made that an employee is potentially subject to exposure, the department must follow the ECP.
- b. Engineering controls will be used as a primary method to reduce work exposure (e.g., disposable bags, sharps containers, and self-sheathing needles).
- c. Departments must provide, at no cost to the employee, and require employees to use equipment such as gloves, gowns, masks, and eye protection, as well as repair or replace those items when necessary.
- d. Departments must launder, repair, and replace PPE items as necessary.

8. Workplace Practices

- a. Employees shall wash their hands immediately after removing gloves and after hand contact with blood.
- b. All PPE must be removed immediately upon leaving the work area.
- c. All biohazardous materials (e.g., gloves, contaminated PPE) shall be segregated from other waste into biohazardous waste containers.
- d. Used needles and other sharps shall not be bent, broken, recapped, or resheathed by hand.
- e. Eating, drinking, smoking, applying cosmetics, and handling contact lenses are prohibited in work areas where the potential for exposure exists.
- f. Food and drinks shall not be stored in the same refrigerators or cabinets where blood or other infectious materials are stored.

9. Housekeeping

- a. Work surfaces potentially contaminated with human blood or bodily fluids shall be decontaminated before beginning work and at the end of each day with an appropriate disinfectant.
- b. Equipment shall be checked routinely and decontaminated before servicing or shipping.
- c. All containers intended for reuse shall be inspected, cleaned, and disinfected on a regular schedule.
- d. Broken glassware shall not be picked up by hand. A broom and dustpan or forceps should be used.
- e. Specimens of blood shall be placed in a closeable, leak-proof container and labeled with the biohazard emblem for storage and transport.

10. Sharps

- a. "Sharps" is a generic term dealing with any item that can puncture, cut, or scrape body parts.
- b. Sharps must be disposed of in an FDA-approved container that is puncture resistant, leak resistant, and cannot be opened without great difficulty. The sharps container must always be kept close to the work area so transporting a sharp is not required.
- c. Sharps containers must be red in color with biohazard labels.
- d. Sharps containers are not to be filled beyond the fill line indicated on the container.

11. Training

- a. Training will be initiated by the manager or supervisor when an employee is assigned to a department where there is a chance for exposure. Training will be provided annually and include the following:
 - (1) Information about the Bloodborne pathogens standard;
 - (2) A general explanation of bloodborne pathogen diseases;
 - (3) Modes of transmission;
 - (4) Methods for identifying tasks that may involve exposure to blood and other infectious materials;
 - (5) Practices that will prevent exposure, including engineering controls, work practices, and PPE;
 - (6) Information on Hepatitis B vaccine;
 - (7) Response to emergencies involving blood;
 - (8) How to handle exposure incidents;
 - (9) Post-exposure evaluation and counseling for employees; and
 - (10) Signs, labels, and color-coding.
- b. Training records must be maintained by the department for three years. They must include:
 - (1) Date and location of training;
 - (2) Contents of the training;
 - (3) Trainer's name; and
 - (4) Names and job titles of trainees.
- c. Training shall be recorded and maintained by EHS.

12. Labeling

- a. Biohazard warning labels shall be affixed to containers of infectious waste, refrigerators, freezers containing blood, and all other containers used to transport potentially infectious materials.
- b. These labels shall be orange or red with letters and biohazard symbol in a contrasting color.
- c. All infectious waste going for disposal shall be in closeable, leak-proof containers that are color-coded and labeled.

- d. Disposal of all potentially infectious waste shall be in accordance with applicable federal, state, and local regulations.

13. Recordkeeping

- a. Confidential health records shall be maintained for the length of employment plus 30 years.
- b. Health records must include the employee's name, social security number, Hepatitis B vaccination records, records of any exposure incidents, copies of all physical examinations, and a copy of the physician's written opinion about past exposures.
- c. Medical records must be made available to the employee and to anyone with written consent from the employee. These records are not available to the employer.

14. Medical Surveillance

- a. Employees who have been identified as having an exposure to blood must have made available to them a Hepatitis B vaccination within 10 working days. This will include all employees identified in section 6 above on employee exposure determination. The boosters will be furnished to the employee at no cost. If there are boosters to be administered, they must be made available to the employee.
- b. Employees who have had an exposure must receive a follow-up evaluation at no cost to the employee. They must also file an incident report with the Office of Risk Management.
- c. Employees must sign an *Occupational Health Program Enrollment Form* (Attachment A) if they are determined to be in Category A of occupational exposure.

15. References and Resources

- a. [29 CFR 1910.1030 Bloodborne Pathogens](#)
- b. [29 CFR 1910.1020\(e\) Recordkeeping](#)

[Attachment A: Occupational Health Program Enrollment Form](#)