Table of Contents

1.0 Purpose .................................................................................................................................... 2
2.0 Scope ........................................................................................................................................ 3
3.0 Definitions .................................................................................................................................. 3-4
4.0 Responsibilities ........................................................................................................................... 4
   4.1 Environmental Health and Safety .......................................................................................... 5
   4.2 University Departments ......................................................................................................... 6
5.0 Methods of Implementation and Control .................................................................................. 5-10
   5.1 Universal Precautions ........................................................................................................... 5
   5.2 Exposure Control Plan ............................................................................................................ 5-6
   5.3 Engineering and Work Practice Controls ............................................................................ 6-7
   5.4 Personal Protective Equipment ............................................................................................. 7-8
      a. Use ................................................................................................................................... 7
      b. Accessibility ....................................................................................................................... 7
      c. Repair and Replacement ................................................................................................. 8
      d. Gloves ............................................................................................................................... 8
      e. Masks, Eye Protection, Face Shields ............................................................................. 8
   5.5 Housekeeping ......................................................................................................................... 9
   5.6 Contaminated Sharps, Discarding and Containers ............................................................ 9-10
   5.7 Regulated Medical Waste ..................................................................................................... 10
6.0 Communications of Hazards to Staff ....................................................................................... 10-11
   6.1 Labels ................................................................................................................................... 10-11
      a. Biohazard Labels ............................................................................................................. 10-11
7.0 Training ....................................................................................................................................... 11-12
   7.1 Training Program Elements ................................................................................................. 11-12
8.0 Recordkeeping and Follow-Up ................................................................................................. 13-14
   8.1 Responsibilities ....................................................................................................................... 12
      a. Health Services .............................................................................................................. 12
      b. Risk Management and Insurance .................................................................................... 12
      c. Environmental Health and Safety .................................................................................... 12
9.0 Training Record Elements ....................................................................................................... 12-13
   9.1 Sharps Injury Log ................................................................................................................ 13
10.0 Hepatitis B Declination ............................................................................................................ 13
11.0 Contact Information ................................................................................................................. 14
1.0 Purpose

Trinity University is committed to providing a safe and healthful work environment for all individuals. In pursuit of this endeavor, the following exposure control plan (ECP) is provided to eliminate or minimize occupational exposure to bloodborne pathogens in accordance with OSHA standard 29 CFR 1910.1030, "Occupational Exposure to Bloodborne Pathogens."
2.0 Scope

The ECP is a key document to assist our University in implementing and ensuring compliance with the standard, thereby protecting our employees. Those employees who are determined to have occupational exposure to blood or other potentially infectious materials (OPIM) must comply with the procedures and work practices outlined in this ECP.

This ECP includes:

- Determination of employee exposure.
- Implementation of various methods of exposure control, including:
  - Universal precautions;
  - Engineering and work practice controls; and
  - Personal protective equipment (PPE).
- Housekeeping.
- Hepatitis B vaccination.
- Post-exposure evaluation and follow-up.
- Communication of hazards to employees and training.
- Recordkeeping.
- Procedures for evaluating circumstances surrounding an exposure incident.

The methods of implementation of these elements of the standard are discussed in the subsequent pages of this ECP.

References

- 29 CFR 1910.1030 Bloodborne Pathogens
- 29 CFR 1910.1020 Access to Staff Exposure and Medical Records 29 CFR 1910.151 Medical and First Aid
- 49 CFR 172.700 Hazardous Materials Subpart H - Training
- CPL 2-2.44C Enforcement Procedures for the Occupational Exposure to Bloodborne Pathogens Standard
- STP 2-1.166 Occupational Exposure to Bloodborne Pathogens; Final Rule

3.0 Definitions

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

- **HBV** means hepatitis B virus.
- **HCV** means hepatitis C virus.
- **HIV** means human immunodeficiency virus.
**Occupational Exposure** is where staff may have reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of staff duties.

**Other Potentially Infectious Materials** The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids; Any unfixed tissue or organ (other than intact skin) from a human (living or dead); 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 animals infected with HIV or HBV.

**Regulated Medical Waste** is 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.

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

**Work Practice Controls** are controls that reduce the likelihood of exposure by altering the manner in which a task is performed.

### 4.0 Responsibilities

#### 4.1 **Environmental Health and Safety (EH&S):**

- Provides a written Exposure Control Plan designed to eliminate or minimize staff exposure.
- Reviews the Exposure Control Plan and updates it at least annually or whenever necessary.
- Ensures that the bloodborne pathogen shipping information (as covered in the Department of Transportation’s, Hazardous Materials Training) is conveyed to all affected staff and the servicing representative, as appropriate, prior to handling, servicing, or shipping including hazard communication information.
- Establishes and maintains a sharps injury log for the recording of percutaneous injuries from contaminated sharps.
- Ensures that all medical evaluations and procedures including the hepatitis B vaccine and vaccination series are maintained.
4.2 University Departments:

- Provides, at no cost to the staff, appropriate personal protective equipment (PPE).
- Ensures that the staff use appropriate personal protective equipment.
- Ensure that hand-washing facilities or antiseptic towelettes are readily accessible to the staff.
- Ensures that PPE is repaired or replaced as needed, at no cost to the staff.
- Ensure that all staff with occupational exposure participate in a training program provided by EH&S.
- Ensure that the staff wash their hands immediately after removal of gloves or other personal protective equipment.
- Ensure that the staff wash hands and any other skin with soap and water, or flush mucous membranes with water immediately following contact of such body areas with blood or other potentially infectious materials.
- Ensure that a copy of the Exposure Control Plan is kept and is accessible to the staff at all times.
- Assure that staff who decline to accept hepatitis B vaccination offered by the Health Services sign the hepatitis B vaccine declination statement.
- The administrator of the using department/office, or their designee, will be responsible for training, documentation of training, and making the written ECP available to employees, OSHA, and NIOSH representatives.

5.0 Methods of Implementation and Control

5.1 Universal Precautions

Universal precautions shall be observed to prevent contact with blood or other potentially infectious materials, under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious.

5.2 Exposure Control Plan

Employees covered by the bloodborne pathogens standard receive an explanation of this ECP during their initial training session by their respective department. It will also be reviewed in their department's annual refresher training. All employees have an opportunity to review this plan at any time during their work shifts via the Trinity University website. If requested, the EH&S will provide an employee with a printed copy of the ECP.

The review and update of such plans must also:

- Reflect changes in technology that eliminate or reduce exposure to bloodborne
pathogens.

- Document annually consideration and implementation of appropriate commercially available and effective safer medical devices designed to eliminate or minimize occupational exposure.

**EHS requests input from non-managerial employees with occupational exposure to bloodborne pathogens or other potentially infectious materials in the identification, evaluation, and selection of effective engineering and work practice controls. Your input can provide us with helpful information as it relates to safety audits, inspections, investigations, analysis of data, pilot testing, and safety committees.**

### 5.3 Engineering and Work Practice Controls

Engineering and work practice controls will be used to prevent or minimize exposure to bloodborne pathogens. When occupational exposure remains after institution of these controls, personal protective equipment shall also be used.

Engineering and work practice controls shall be established by each department’s administrator.

Each department/office shall make it the responsibility of a department/office administrator to examine and maintain or replace engineering or work practice controls on a regular schedule to ensure their effectiveness.

Hand washing facilities shall be provided by each department that will be readily accessible to employees.

Employees shall wash their hands and other exposed skin with soap and water immediately after removal of gloves or other personal protective equipment. Mucous membranes will be flushed with water, if they have been exposed to blood or other potentially infectious materials.

Eating, drinking, smoking, handling contact lenses, applying cosmetics or lip balm, are prohibited in work areas where blood is a reasonable likelihood of occupational exposure.

Food and drink shall not be kept in refrigerators, freezers, shelves, and cabinets or on countertops or bench tops where blood or other potentially infectious materials are present.

All procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, spraying, spattering, and generation of droplets of these materials.
Mouth pipetting/suctioning of blood or other potentially infectious materials shall be prohibited.

The university identifies the need for changes in engineering control and work practices through: review of OSHA records, employee interviews; Security, Safety and Health Committee recommendations. Trinity evaluates the need for new procedures or new products by Safety, Security, and Health Committee recommendations.

The Director of EHS will ensure effective implementation of these recommendations.

5.4 Personal Protective Equipment

Where there is occupational exposure, the University shall provide at no cost to the employee, appropriate personal protective equipment such as, but not limited to: gloves, gowns, face shields or masks and eye protection, and mouthpieces, resuscitation bags, pocket masks, or other ventilation devices. Personal protective equipment will be considered "appropriate" only if it does not permit blood or other potentially infectious materials to pass through to or reach the employee's work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time which the protective equipment will be used.

a. Use

Each department/office shall ensure employees use appropriate personal protective equipment, unless the supervisor can show that the employee temporarily and briefly declined to use personal protective equipment; when, under rare and extraordinary circumstances, it was the employee's professional judgment that would have prevented the delivery of health care or public safety services; or would have posed an increased hazard to the safety of the worker or co-worker. When the employee makes this judgment, the University and the department administrator will conduct an investigation and document the results to determine whether changes can be instituted to prevent such concurrences in the future.

b. Accessibility

The department/office administrator shall ensure that appropriate personal protective equipment in the appropriate sizes is readily available at the worksite or is issued to employees.
c. **Repair and Replacement**

The department shall repair or replace personal protective equipment as needed to maintain its effectiveness, at no cost to the employee.

If a garment is penetrated by blood or other potentially infectious materials, the garment shall be removed immediately.

All personal protective equipment shall be removed prior to leaving the work area. When PPE is removed, it will be placed in an appropriately designated area or container for storage, washing, decontamination, or disposal.

d. **Gloves**

Gloves shall be worn when it can be reasonably anticipated that the employee may have hand contact with:

- Blood
- Other potentially infectious material (OPIM)
- Mucous membranes
- Non-intact skin
- Handling or touching contaminated items or surfaces

Disposable gloves (one time use only), such as surgical or examination gloves shall be replaced as soon as practical when contaminated if they are torn, punctured, or when their ability to function as a barrier is compromised.

Disposable glove shall not be washed or decontaminated for re-use.

Utility gloves may be decontaminated for re-use if the integrity of the gloves is not compromised. However, they must be discarded if they are cracked, peeling, torn, punctured, or exhibits other signs of deterioration or when their ability to function as a barrier is compromised.

e. **Masks, Eye Protection, and Face Shields**

Masks in combination with eye protection devices, such as goggles or glasses with solid side shields, or chin-length face shields, shall be worn whenever splashes, spray, spatter, or droplets of blood or other potentially infectious materials may be generated and eyes, nose, or mouth contamination can be reasonably anticipated.
Exposures to bloodborne pathogens should be reported to Health Services during regular business hours. After-hours should report to emergency room.

5.5 **Housekeeping**

Departments/offices will ensure the worksite is maintained in a clean and sanitary condition.

Contaminated work surfaces are decontaminated with a **10% chlorine bleach solution** (minimum concentration) after completion of procedures; immediately or as soon as feasible when surfaces are overtly contaminated or after any spill of blood or other potentially infectious materials; and at the end of the work shift if the surface may have become contaminated since the last cleaning.

Broken glassware which may be contaminated is not be picked up directly with the hands. It is cleaned up using mechanical means, such as a brush and dust pan, tongs, or forceps.

5.6 **Contaminated Sharps, Discarding and Containers**

Contaminated sharps shall be discarded immediately, or as soon as possible, in containers that are closeable, puncture resistant, leak proof and properly labeled or color-coded.

Contaminated sharps shall not be bent, recapped, or removed unless it can be shown that no other alternative is possible or that such action is required by a specific medical procedure. Shearing or breaking of contaminated needles is also prohibited.

Sharps containers shall be puncture resistant, leak proof, and labeled or color-coded in accordance with the OSHA standard.

During use, containers for contaminated sharps shall be easily accessible and located as close as possible to the immediate area where sharps are used or can be reasonably anticipated to be found. Sharps will also be maintained upright throughout their use, replaced routinely, and not be allowed to over fill.

When moving containers of contaminated sharps from the area of use, the containers shall be closed immediately prior to removal or replacement to prevent spillage or protrusion of contents during storage, transport, or shipping.

Reusable sharps that are contaminated with blood or other potentially infectious materials are not stored or processed in a manner that requires staff to reach by hand into the containers where these sharps have been placed.
Containers shall be placed in a secondary container if leakage is possible. The secondary container shall be closable and labeled or color-coded as required.

Disposable containers shall not be opened, cleaned manually, or in another manner that would expose employees to the risk of injury.

5.7 Waste

Regulated waste is placed in containers which are:
- Closable.
- Constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping.
- Properly labeled or color-coded.
- Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

If outside contamination of the regulated waste container occurs, it is placed in a second container. The second container is: Closable; Constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping; properly labeled or color-coded and closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

Disposal of all regulated waste is done in accordance with applicable federal, state, and local regulations.

6.0 Communication of Hazards to Staff

6.1 Labels

EHS will ensure that departments/offices affix warning labels or use proper bags as required if regulated waste or contaminated equipment is brought into the University. Employees are to notify EHS if they discover regulated waste containers, refrigerators containing blood or OPIM, contaminated equipment, etc. without proper labels.

a. Bio-Hazard Labels

Warning labels are affixed to containers of regulated waste, refrigerators and freezers containing blood or other potentially infectious material; and other containers used to store, transport, or ship blood or other potentially infectious materials.
These labels are predominately fluorescent orange or orange-red with lettering and symbols in a contrasting color.

Labels are affixed to the container by string, wire, adhesive, or other method that prevents their loss or unintentional removal.

Red bags or red containers may be substituted for labels.

Individual containers of blood or other potentially infectious materials that are placed in a labeled container during storage, transport, shipment or disposal are exempted from the labeling requirement.

7.0 Training

The bloodborne pathogens standard requires employers to maintain and keep accurate training records for three years.

EHS provides training as follows for those with occupational exposure:

- At the time of initial assignment to tasks where occupational exposure may take place and annually thereafter.
- EHS provides additional training when changes such as modification of tasks or procedures or institution of new tasks or procedures affect the staff’s occupational exposure. The additional training may be limited to addressing the new exposures created.
- Material appropriate in content and vocabulary to educational level, literacy and language of staff is used.

7.1 The training program contains the following elements:

- An accessible copy of the regulatory text of this standard and an explanation of its contents.
- A general explanation of the epidemiology and symptoms of bloodborne diseases.
- An explanation of the modes of transmission of bloodborne pathogens.
- An explanation of Trinity University’s exposure control plan and the means by which the staff can obtain a copy of the written plan.
- An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials.
- An explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and personal protective equipment.
- Information on the types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment.
- An explanation of the basis for selection of personal protective equipment.
- Information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge.
• Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials.
• An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available.
• An explanation of the signs and labels and or color coding.
• An opportunity for interactive questions and answers with the person conducting the training session.

The person conducting the training shall be knowledgeable in the subject matter covered by the elements contained in the training program as it relates to the workplace that the training will address (including the additional DOT Hazmat training requirements).

8.0 Recordkeeping and Follow-Up

8.1 Responsibilities by Department as they relate to medical or injury reports.

a. Health Services
   • Immunization and antibody testing.
   • Facilitates access to treatment through the report of an on-the-job (OTJ) injury.
   • Hepatitis B administration.
   • Stores records of only vaccines and titers administered in Health Services.

b. Risk Management and Insurance
   • Confidential post exposure records.
   • Sharps injury logs.

c. Environmental Health and Safety
   • Report of injury forms.

Employees who are referred for evaluation for exposure to bloodborne pathogens are managed by the clinic where they are referred and the records reside in that clinic.
Post exposure and evaluation and follow up is performed by a clinic that manages workers comp injuries.

9.0 Training Record Elements:
   • The dates of the training sessions.
   • The contents or a summary of the training sessions.
   • The names and qualifications of persons conducting the training.
• The names and job titles of all persons attending the training sessions.
• Training records are maintained for 3 years from the date on which the training occurred.

9.1 Sharps injury log

The information in the sharps injury log is recorded and maintained in such manner as to protect the confidentiality of the injured staff. The sharps injury log contains:

• The type and brand of device involved in the incident.
• The department or work area where the exposure incident occurred.
• An explanation of how the incident occurred.

10.0 Hepatitis B Declination

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 me.

Contact Health Services if you wish to decline the HBV vaccination.
11.0 Contact Information

**Osvaldo Crespo III**  
Director of Environmental Health and Safety, Biological Safety Officer  
Phone Number: **210-999-7004**

**Health Services**  
Phone Number: **210-999-8111**

**Risk Management and Insurance**  
Phone Number: **210-999-8303**

**University Police**  
Phone Number: **210-999-7000** (emergency)  
**210-999-7070** (non-emergency)