

# Drew University Bloodborne Pathogens Exposure Control Plan and Procedures

(Draft SOP 12/10)

## **PURPOSE**

To provide a written plan for preventing and/or minimizing exposure to bloodborne pathogens for those Drew University personnel who may be involved in the handling of human blood, blood products, or other potentially infectious material known collectively as “human biological specimens.”

## **REFERENCES**

OSHA 29 CFR 1910.1030, Bloodborne Pathogens

OSHA 29 CFR 1910.145, Specifications for Accident Prevention Signs and Tags

CDC/NIH Manual “Biosafety in Microbiological & Biomedical Laboratories”.

Exhibit 1, Personal Protective Equipment and Disinfection

Exhibit 2, Biohazard Warning Labels

Exhibit 3, Hepatitis B Vaccination Declination Form

## **RESPONSIBILITIES**

It is the responsibility of the employee’s and their supervisor’s to be familiar with and use recommended work practices (as described in this procedure) when handling human biological specimens; to immediately report human biological specimen exposure incidents to his or her supervisor and to the Human Resources Department and to attend initial and annual training as required.

## **RESPONSIBILITIES – CONT’D**

It is the responsibility of the Drew University Director - Environmental, Health and Safety to periodically monitor the work area for compliance with the requirements of this procedure; to ensure that this procedure is reviewed periodically and updated if necessary; to coordinate Hepatitis B vaccination for those employees with occupational exposure to human blood or blood products; to obtain a signed statement (as presented in Exhibit 3) from those employees who decline the Hepatitis B vaccination; and to provide training on an on-going basis or as requested.

## **DEFINITIONS**

Human biological specimens — Include human blood, blood products, semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, peritoneal fluid, pericardial fluid, amniotic fluid, and other unfixed human tissue or organ. These procedures do not apply to feces, nasal secretions, sputum (saliva), sweat, tears, urine, and vomitus unless they contain visible blood or are suspected of containing an infectious agent.

Exposure incident – A specific eye, mouth, other mucous membrane non-intact skin, or parenteral contact with potentially infectious material that results from the performance of an employee’s duties.

Occupational Exposure – Category I - An exposure incident occurring during the course of an employee’s

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primary duties such as designated First Aid Team Members rendering first aid or handling of biological specimens during the course of research, etc. (i.e. Public Safety officers, Health Services) Category II - Exposure incident while performing collateral duties such as Housekeeping and or Maintenance work.

Parenteral – Piercing mucous membranes or the skin barrier through such events as needle sticks, human bites, cuts, and abrasions.

Sources of exposure (exposure determination) – Include Category I: rendering first aid or other emergency responses to human injuries and illnesses which may involve exposure to human biological specimens and Category II: clean-up and or decontamination of affected materials.

Universal Precautions – Method of work practices to control or minimize exposure to bloodborne pathogens; assume that all human and non human primate biological specimens are infectious and require the use of barrier protection in the form of engineering controls and/or personal protective equipment to prevent exposure.

HIV/HBV- Human Immunodeficiency Virus/Hepatitis B Virus

## **PROCEDURE**

### **RESPONSIBILITY**

Designated First Aiders,  
Employees Working with  
Potentially Infectious Materials,  
Housekeeping, Maintenance

### **ACTION**

#### **A. Identification of Bloodborne Pathogen Hazards**

1. Assume that a bloodborne pathogen hazard exists whenever the following items are observed:
  - a. Visible signs of the presence of blood and/or blood products or any human clinical samples.
  - b. Biological hazard warning symbols or labels/signs/tags identifying specific areas or materials as contaminated. (see Exhibit 2)
  - c. When providing first aid to victims with injuries involving cuts, abrasions, etc., exposure to blood should be expected.

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## PROCEDURE – CONT'D

### RESPONSIBILITY

### ACTION

#### **B. Controlling Hazards/Minimizing Exposure**

Designated First Aiders,  
Employees Working with  
Potentially Infectious  
Materials

1. Use “Universal Precautions;” that is, assume all human biological specimens are infectious and use barrier protection in the form of engineering controls and/or personal protective equipment to prevent exposure.
2. Use Universal Precautions, during First Aid/Emergency Response or when handling human clinical samples & other potentially infectious material.
  - a. Wear protective clothing to prevent splash, spray, or other skin contact with human blood, blood products, or other infectious materials. See **Exhibit 1**.
  - b. Decontaminate and dispose of contaminated material in accordance with **Exhibit 1**

#### **C. Post-Exposure and Medical Evaluation**

All Personnel

1. Immediately report any exposure to human biological specimens to the supervisor and to Human Resources Representative.

Director Environmental Health  
and Safety

2. Coordinate the required post-exposure medical evaluation, Hepatitis B vaccination program, and medical recordkeeping in accordance with the procedures outlined in this SOP
3. Make sure the person who was exposed obtains a **CONFIDENTIAL** medical evaluation consisting of at least the following elements:

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## PROCEDURE – CONT'D

### RESPONSIBILITY

Director Environmental Health  
and Safety

Director – Environmental, Health  
and Safety

### ACTION

#### C. Post-Exposure and Medical Evaluation – Cont'd

- a. Documentation of the routes of exposure and circumstances.
  - b. Identification and documentation of the source individual (unless prohibited by law). The source individual's blood should be tested after consent is obtained (if required). If consent is not obtained, it shall be documented as such. If consent from the source individual is not required, then blood will be sampled. Results from the sampling will be made available to the exposed person in accordance with the regulations.
  - c. Blood sampling and testing (if exposed person consented to blood test) of exposed person. (These tests may also be stored in accordance with the regulation.)
  - d. Post-exposure prophylaxis for exposed person if medically indicated.
  - e. Physical evaluation of the exposed person and a physician's written opinion provided within fifteen days.
4. Offer the person who was exposed the opportunity to receive the Hepatitis B vaccination free of charge, paid for by the company. Personnel must receive training as described below prior to being offered the vaccine. The vaccine must be offered within ten working days of initial assignment to tasks involving occupational exposure.
  5. If the person offered the vaccination declines, have that employee sign the Hepatitis B Vaccination Declination statement as it appears in **Exhibit 3**. This statement is not a waiver of any rights. The statement is documentation that the employee was offered the Hepatitis B vaccination and becomes part of the employee's medical record.

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## PROCEDURE – CONT'D

### RESPONSIBILITY

### ACTION

**NOTE:** Designated first aiders are offered but are not required to accept the company provided Hepatitis B vaccine. However, if they are offered and decline they must sign the declination statement.

#### **D. Training**

All Personnel

All personnel who have an occupational exposure to bloodborne pathogens must attend initial training (prior to assignment with occupational exposure) and annual training coordinated by Director Environmental, Health and Safety .

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## **EXHIBIT-1, PERSONAL PROTECTIVE EQUIPMENT AND DISINFECTION**

### **PERSONAL PROTECTIVE EQUIPMENT**

Personal protective equipment may include, but is not limited to: gloves, laboratory coats, protective gowns, disposable suits, safety glasses, splash goggles, face shields, and NIOSH approved respirators.

In any operation where splashes are possible or aerosols are generated or used, eye protection suitable to the task (i.e. safety glasses, goggles, or face shields) and NIOSH-approved respiratory protection should be worn. Personal protective equipment must be selected according to the hazard.

### **DECONTAMINATION/DISINFECTION**

Work surfaces should be disinfected after any incident when the potential for contamination exists. The disinfectant of choice is a 1:10 dilution of 5.25% sodium hypochlorite (household bleach). However, an approved hospital disinfectant chemical germicide that is tuberculocidal or an approved bloodborne spill kit may be used. Individuals involved should take appropriate safety measures (as described above) to minimize potential exposure during these operations. Hypochlorite solutions must not be mixed with any other cleaner.

Items used for cleaning work surfaces (including gloves and other personal protective equipment) that cannot be decontaminated or are intended for disposal should be disposed of as medical waste..

### **SHARPS**

Broken contaminated glassware shall not be picked up directly with the hands. It shall be picked up by mechanical means. Contaminated glassware should be disposed of as a biological hazard in a rigid puncture-proof container, which is properly labeled.

The use of hypodermic needles and/or syringes should be avoided whenever possible. If no other substitute is available, then during operations, extra care should be taken to avoid accidental needle sticks and other skin punctures. Used needles should not be recapped, bent, broken, sheared, or separated from syringes, but should be disposed of in a rigid puncture-proof container.

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## **EXHIBIT-2, BIOHAZARD WARNING LABELS**

In addition to the universal biological hazard symbol, the following labeling information may be used or found on biological hazard containers.

The words “Biological Hazard” or the word “Biohazard” and/or the universal biological hazard symbol shall be fluorescent orange or orange-red, or at least predominantly so, with lettering or symbols in a contrasting color.

A signal word shall accompany the words “Biological Hazard” or the word “Biohazard” and/or the symbol. The signal shall either be “Danger,” “Caution,” or “Warning.”

A signal word “Danger” shall be used in major hazard situations where an immediate hazard presents a threat of death or serious injury.

The signal word “Caution” shall be used in minor hazard situations where a non-immediate or potential hazard or unsafe practice presents a lesser threat of employee injury.

The signal word “Warning” shall be used to represent a hazard level between that of “Caution” and “Danger.”

Red bags or red containers may be substituted for labeling if the containers are easily recognizable as containing biohazards by all personnel who may encounter them (i.e. scientists, maintenance personnel, and disposal personnel.)

All containers designated for disposal should be labeled with the following “ Drew University 36 Madison Ave, Madison , NJ “



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**EXHIBIT-3, HEPATITIS B VACCINATION DECLINATION FORM**

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

DEPT: \_\_\_\_\_

LOCATION: \_\_\_\_\_

SUPERVISOR: \_\_\_\_\_

PLEASE READ THE FOLLOWING STATEMENT AND SIGN BELOW.

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 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: \_\_\_\_\_

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