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## **BLOODBORNE PATHOGENS**

### **EXPOSURE CONTROL PLAN (ECP)**

#### **PURPOSE**

This document serves as the written procedures for the Exposure Control Plan (ECP) for Bloodborne Pathogens. These guidelines provide policy and safe practices to prevent the spread of disease resulting from handling blood or other potentially infectious materials (OPIM) during the course of work.

The purpose of this ECP includes:

- Eliminating or minimizing occupational exposure of employees to blood or certain other bodily fluids.
- Complying with OSHA's Bloodborne Pathogens Standard, 29 CFR 1910.1030
- Complying with OSHA's First Aid Training in General Industry, 29 CFR 1910.151

#### **SCOPE**

This procedure applies to *Drake University*. It is intended for those locations in which emergency medical services cannot be provided in a timely fashion (within 4 minutes); thereby requiring on site designated first aid providers.

#### **RESPONSIBILITIES**

*EHS* is responsible for ensuring compliance with this procedure.

All employees are responsible for complying with the requirements of this procedure.

## **PROCEDURE**

### **Administrative Duties**

The medical records for this program will be maintained with other employee medical files. Training records will be maintained and filed in the individuals department or with Human Resources Office. A copy of this plan may be reviewed by employees. It is located in the EHS offices and Online.

### **Exposure Determination**

*Drake University* has determined which employees may incur occupational exposure to blood or OPIM (other potentially infectious materials). The exposure determination is made without regard to the use of personal protective equipment (i.e., employees are considered to be exposed even if they wear personal protective equipment).

The following job assignments are considered occupationally exposed:

- Public Safety*
- Recreational Services employees*
- Athletics Event Staff*
- Facilities*

### **Compliance Strategies**

Universal precaution techniques developed by the Centers for Disease Control and Prevention (CDC) will be observed at this facility to prevent contact with blood or OPIM. All blood or OPIM will be considered infectious regardless of the perceived status of the source individual.

### **Engineering and Work Practice Controls**

Engineering and work practice controls will be used to eliminate or minimize exposure to employees at this facility. Where occupational exposure remains after institution of these controls, employees are required to wear personal protective equipment. At this facility the following engineering controls are used:

- Removing soiled PPE as soon as possible.
- Cleaning and disinfecting all equipment and work surfaces contaminated with blood or OPIM.
- Thorough hand washing with soap and water immediately after providing care or provision of antiseptic towelettes or hand cleanser where hand washing facilities are not available.
- Use of leak-proof, labeled containers for contaminated disposable waste or laundry.
- All employees determined to have an increased potential for exposure will be offered a company paid Hepatitis B vaccine and antibody titer test. The vaccine should be offered within 10 days after training and assignment. All First

Responders offered the vaccine must fill out the Appendix 3 form regardless of their decision to receive or decline the vaccine.

The preceding engineering and work practice controls will be re-examined, as part of the incident investigation, after any incident involving bloodborne pathogens occurs.

### **Hand washing Facilities**

Hand washing facilities are available to employees who have exposure to blood or OPIM. Sinks for washing hands after occupational exposure are near locations where exposure to bloodborne pathogens could occur.

*Location of Hand washing Stations:*

*Men and Women's Bathrooms*

*Labs*

*Breakrooms*

Employees will wash their hands and any other contaminated skin after immediately after removing personal protective gloves, or as soon as feasible with soap and water.

Follow-up to ensure that if employees' skin or mucous membranes become contaminated with blood or OPIM, that those areas are washed or flushed with water as soon as feasible following contact shall be conducted and documented.

### **Work Area Restrictions**

If there is an injury involving blood or OPIM, the area shall be restricted until the materials are cleaned and contained.

### **Contaminated Equipment**

Contamination of equipment is not expected during normal operations. If equipment is contaminated as a result of injury or illness, access to equipment or the work area shall be restricted until the materials are cleaned and contained and the equipment is properly disinfected.

Biohazard labels are affixed to containers of regulated waste containing blood or OPIM, and other containers used to store, transport or ship blood or OPIM. The universal biohazard symbol is used. The label is fluorescent orange or orange-red. Red bags or containers may be substituted for labels. The contaminated waste container should be closable, constructed to contain all contents, and able to prevent leakage of fluids during handling, storage, transport or shipping.

### **Personal Protective Equipment**

All personal protective equipment (PPE) used is to be provided without cost to employees. The protective equipment is considered appropriate only if it does not permit blood or OPIM to pass through or reach the employees' clothing, 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.

The needed PPE shall be readily accessible in biohazard kits located with first-aid kits throughout the facility.

Biohazard kits should contain:

Gown	Bio-Bag
Eye Shield/Mask combination	Towelettes
Exam Gloves	

Biohazard kit refills shall be purchased as needed.

Employees must remove all garments that are penetrated by blood or OPIM immediately or as soon as possible after the exposure.

Employees must remove all PPE before leaving the work area. When PPE is removed, employees shall place it in Biohazard bags for proper disposal.

### **Gloves**

Employees must wear gloves when they anticipate hand contact with blood, OPIM, non-intact skin, and mucous membranes or when handling or touching contaminated items or surfaces.

Disposable gloves shall not 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.

### **Eye and Face Shields**

Employees must wear masks in combination with eye protective devices, such as goggles or glasses with solid side shields, whenever splashes, splatter, or droplets of blood or OPIM may be generated and reasonably anticipated to contaminate eye, nose, or mouth.

### **Specific Clean-Up Procedure**

Trained first responders or the custodial staff will be responsible for Clean-up Procedures. Bloodborne Pathogen Kits are located throughout the campus. Personnel handling spill procedures will wear appropriate gear (gloves, shields, masks, eye wear, gowns). Other equipment includes paper towels, disinfectant-bleach solution, leak-proof container and biohazard labels.

Cleaner shall wear appropriate gear, remove large objects first with paper towels, these objects will be placed in a leak-proof bag or sharps container if applicable, single paper towels will be placed over the area and saturated with disinfectant (allow to soak several minutes), wipe surface with towels and wipe a second time with towels saturated in disinfectant. All clean-up materials will be placed in a leak-proof bag (marked biohazard) and held for pick-up by appropriate disposal service. All reusable equipment will be

disinfected prior to reuse.

### **Occupational Health Provider**

This procedure and all its components shall be provided to the facility's Occupational Health / Medical Provider for their awareness, requesting their agreement to comply with this program. In addition, your Occupational Health / Medical provider shall validate to the location their ability to perform Pre and Post Exposure Hepatitis B Vaccinations and treatment.

Hepatitis B Pre and Post Exposure Hepatitis B Vaccinations and Treatment for this facility are provided by Concentra Medical Centers located at:

2100 Dixon, Suite E  
Des Moines, Iowa 50316  
(515) 265-1020

**OR**

11144 Aurora Avenue  
Urbandale, Iowa 50322  
(515) 278-6868

### **TRAINING**

Awareness training will be provided by an instructor knowledgeable in this procedure.

First responder training: The trainer will be certified by a recognized agency as Certified Instructor in BloodBorne Pathogens (i.e. Red Cross and American Heart Association) or will be **provided by or under the supervision of a medical professional** experienced with infectious material, this procedure and, where applicable, regulatory requirements. Training may include and be facilitated by *video media, phone conferencing, or other training media and aids*. A written examination and/or sign off sheet will be part of the training verification (See Appendix 2 for an example of an exam).

Employees covered by the bloodborne pathogens standard shall be trained at the time of initial assignment to tasks where occupational exposure may occur, and every year thereafter. Training shall be tailored to the education and language level of the employee, and offered during the normal work shift.

The training will be interactive and cover the following:

- The standard and its contents.
- The epidemiology and symptoms of bloodborne diseases.
- The modes of transmission of bloodborne pathogens.
- The ECP for Bloodborne Pathogen, and a method for obtaining a copy.
- The recognition of tasks that may involve exposure.
- The use and limitations of methods to reduce exposure, for example engineering controls, work practices and personal protective equipment (PPE).
- The types, use, location, removal, handling, decontamination, and disposal of PPE.
- The basis of selection of PPE.
- Information on the Hepatitis vaccine including: Information on its efficacy, safety, method of administering, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge.

- The appropriate actions to take and persons to contact in an emergency involving blood or OPIM.
- The procedures to follow if an exposure incident occurs, including the method of reporting and medical follow-up.
- The evaluation and follow-up required after an employee exposure incident.
- The signs, labels, and color-coding systems.

General awareness training will also be provided to all university employees initially and as part of general safety training.

## **RECORDKEEPING**

Training records shall be maintained for three years from the date of training. The following information shall be documented:

- The dates of the training sessions;
- An outline describing the material presented;
- The names and qualifications of persons conducting the training;
- The names of all persons attending the training sessions.

Medical records shall be maintained in accordance with country, state, or local regulations (OSHA Standard 29 CFR 1910.1020). These records shall be kept confidential, and must be maintained for at least 30 years. The records shall include the following:

- The name and social security number of the employee.
- A copy of the employee's HBV vaccination status, including the dates of vaccination.
- A copy of all results of examinations, medical testing, and follow-up procedures.
- A copy of the information provided to the healthcare professional, including a description of the employee's duties as they relate to the exposure incident, and documentation of the routes of exposure and circumstances of the exposure.

See Appendix 7 for a sample log.

### **Availability**

All employee records shall be made available to the employee in accordance with country, state, and local regulations (29 CFR 1910.1020). All employee records shall be made available to the Assistant Secretary of Labor for the Occupational Safety and Health Administration and the Director of the National Institute for Occupational Safety and Health upon request.

### **Post-exposure evaluation and follow-up**

All exposure incidents are reported, investigated, and documented. When the employee is exposed to blood or OPIM, the incident shall be reported to supervision. When an employee is exposed, he or she will receive a confidential medical evaluation and follow-up, including at least the following elements:

- Documentation of the route of exposure, and the circumstances under which the exposure occurred.

- Identification and documentation of the source individual, unless it can be established that identification is unfeasible or prohibited by state or local law.

### **Post-exposure evaluation and follow-up**

- The source individual's blood shall be tested as soon as feasible and after consent is obtained in order to determine HBV and HIV status. If consent is not obtained, the department manager will document that legally required consent cannot be obtained. When the source individual's consent is not required by law, the source individual's blood, if available, will be tested and the results documented. (See Appendix 4, this form can not be substituted)
- When the source individual is already known to be infected with HBV or HIV, testing for the source individual's known HBV or HIV status need not be repeated.
- Results of the source individual's testing are made available to the exposed employee, and the employee is informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

Collection and testing of blood for HBV and HIV serological status will comply with the following:

- The exposed employee's blood is collected as soon as possible and tested after consent is obtained. (See Appendix 5, this form can not be substituted)
- The employee will be offered the option of having their blood collected for testing of the employee's HIV/HBV serological status. The blood sample will be preserved for up to 90 days to allow the employee to decide if the blood should be tested for HIV serological status.

All employees who incur an exposure incident will be offered post-exposure evaluation and follow-up. All post exposure follow-up will be performed by contracted physician.

The healthcare professional responsible for the employee's Hepatitis B vaccination is provided with the following:

- A copy of this procedure and 29 CFR 1910.1030.
- A written description of the exposed employee's duties as they relate to the exposure incident.
- Written documentation of the route of exposure and circumstances under which exposure occurred.
- Results of the source individuals blood testing, if available.
- All medical records relevant to the appropriate treatment of the employee including vaccination status.

The affected employee shall be provided with a copy of the evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation.

The healthcare professional's written opinion for HBV vaccination must be limited to whether HBV vaccination is indicated for an employee, and if the employee has received such vaccination.

### **Post-exposure evaluation and follow-up**

The healthcare professional responsible for the post exposure follow-up evaluation is

provided the following information:

- A statement that the employee has been informed of the results of the evaluation.
- A statement that the employee has been told about any medical conditions resulting from exposure to blood or OPIM which require further evaluation or treatment.

Note: All other findings or diagnosis shall remain confidential and will not be included in the written report.

## **EVALUATION**

OSHA requires a documented annual review of the written program.

Appendix 1 can be used to perform an annual written gap analysis and/or be used as the OSHA-required program evaluation.



**APPENDIX 1**  
**Exposure Control Plan Checklist**

	YES	NO
1. Are emergency medical services within 4 minutes of the location? If yes, procedure does not apply, unless university has voluntarily designated first aid responders.		
2. Have first responders been designated?		
3. Are medical records kept separate from other records?		
4. Are training records maintained?		
5. Are first aid kits provided?		
6. Are bio hazard kits with disposal bags provided?		
7. Are disinfecting materials available?		
8. Are leak proof disposable bags available?		
9. Are hand washing facilities available?		
10. Are employees designated as first aid providers offered Hepatitis B vaccine?		
11. Have employees refusing the vaccine signed the “Declination form”?		
12. Have medical providers been identified?		
13. Have medical providers been issued a copy of this program?		
14. Are medical providers aware and agree to compliance with this program and has the facility verified Hepatitis B Vaccination ability (and if facilities medical provider is unable, has an alternative provider for <b>Hepatitis B</b> Vaccinations and Treatment been identified and documented in this program)?		
15. Has a thorough review of the exposure control plan (written Bloodborne pathogen plan) been completed and revised as necessary?		

<b>Conducted by:</b>	
<b>Date:</b>	

	Actions Required	Responsibilities	Due Date	Completion Date

## APPENDIX 2

### Exposure Control Plan Examination

1. Which of the following work practices will reduce your chances of becoming infected with bloodborne pathogens or OPIM: a) disposing of all sharps in sharps container b) disinfecting all work surfaces upon contamination c) washing hands d) re-using disposable gloves		
2. List 3 types of personal protective equipment that can help guard against exposure to blood or OPIM.		
3. The Exposure Control Plan (ECP) requires that employers offer Hepatitis B vaccinations to each employee potentially exposed to blood or OPIM in the course of their job.	<b>T</b>	<b>F</b>
4. Commonly used waste containers for disposing of blood or OPIM contaminated materials must be color coded red or labeled with a biohazard symbol.	<b>T</b>	<b>F</b>
5. If you are exposed to human blood or OPIM on the job, you should only notify the medical provider .	<b>T</b>	<b>F</b>

**Name** \_\_\_\_\_

**Date** \_\_\_\_\_

**Instructor** \_\_\_\_\_

**Score** \_\_\_\_\_

### **APPENDIX 3**

#### **Drake University Hepatitis B Vaccination Consent/Declination Form\* (page 1 of 2)**

Employee Name: \_\_\_\_\_

Date: \_\_\_\_\_

Vaccination is encouraged for all employees who have potential for occupational exposure. For unvaccinated individuals, post-exposure prophylaxis and vaccination is offered free-of-charge and is most effective if begun within seven days of the exposure event (OSHA Regulation -29CFR 1910.1030).

Facts about HB vaccine:

- The most common side effect of vaccination is soreness at the injection site.
- Although vaccination of individuals who have had hepatitis B infection is neither necessary nor recommended, the vaccine will not cause adverse effects in such individuals.
- Pregnancy or breast feeding is not a contraindication for receiving the vaccine.
- When a series of 3 injections are administered in the deltoid muscle, the HB vaccine will induce a protective antibody (anti-Hbs) response in 90-95% of healthy adults.
- Special considerations are necessary for hemodialysis patients or other immunosuppressed persons.

#### **Maintenance of Consent/Declination Forms:**

For emergency response members, the original maintained in the employee's medical file.

## Drake University Hepatitis B Vaccination

I have been offered the vaccine and have read and understand the information as presented above: (Please X one, and sign & date)

I choose to take the vaccine. \_\_\_\_\_

### Regulations (Standards - 29 CFR)

#### Hepatitis B Vaccine Declination (Mandatory) - 1910.1030AppA

- Standard Number:** 1910.1030AppA
- Standard Title:** Hepatitis B Vaccine Declination (Mandatory)
- SubPart Number:** Z
- SubPart Title:** Toxic and Hazardous Substances

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.

I choose to decline to take the vaccine. \_\_\_\_\_

Date \_\_\_\_\_

Signature \_\_\_\_\_

-----  
**To be completed if you have chosen to take the vaccine.**

I completed the series of 3 injections for HBV Immunization

as of (day) \_\_\_\_\_ (month) \_\_\_\_\_ (year)

Date \_\_\_\_\_

Signature \_\_\_\_\_

**APPENDIX 4**

**DRAKE UNIVERSITY MEDICAL CONSENT for HIV  
ANTIBODY and HBsAg BLOOD TESTS  
(SOURCE PERSON)\***

I understand that this is a consent to have my blood tested for Hepatitis B Surface Antigen (HBsAg) and Human Immunodeficiency Virus (HIV) antibodies because of an employee's accidental exposure to my blood or body fluids. I understand that this request is the usual procedure following an employee's exposure to blood or body fluids.

I understand that the tests for HIV are not 100% accurate and there is a possibility of false positive or false negative results. I further understand that a positive test result means that a person probably has been exposed to (infected with) the AIDS virus but does not necessarily mean that the person will develop AIDS.

I understand that Drake University will protect the confidentiality of these test results; however, positive test results will be reported to the appropriate health department as required by law. I understand that I will be told the results of these tests and that it is solely my decision to inform my private physician or anyone else of these results. I also understand that the exposed individual will have knowledge of the test results.

I understand that these tests are completely voluntary and that there is no charge to me for these tests. I have read this consent form and have been given the opportunity to ask questions which have been answered to my satisfaction.

Yes  No                      I consent to have my blood tested for HIV (AIDS).

Yes  No                      I consent to have my blood tested for Hepatitis B.

Signature of Source Person \_\_\_\_\_ Date: \_\_\_\_\_

WITNESS \_\_\_\_\_ Date: \_\_\_\_\_

**APPENDIX 5**  
**DRAKE UNIVERSITY MEDICAL CONSENT**  
**for HIV ANTIBODY and HBsAg BLOOD TESTS**  
**(EXPOSED PERSON)\***

I understand that this is a consent to have my blood tested for Hepatitis B Surface Antigen (HBsAg) and Human Immunodeficiency Virus (HIV) antibodies because of an accidental exposure to blood or body fluids in the course of my work. I understand that this request is the usual procedure following an employee's exposure to blood or body fluids.

I understand that the tests for HIV are not 100% accurate and there is a possibility of false positive or false negative results. I further understand that a positive test result means that a person probably has been exposed to (infected with) the AIDS virus but does not necessarily mean that the person will develop AIDS. I understand that the first test is to establish a baseline and that additional blood tests are to determine any subsequent evidence of infection resulting from the exposure.

I understand that *Drake University* will protect the confidentiality of these test results; however, positive test results will be reported to the appropriate health department as required by law. I understand that I will be told the results of these tests and that it is solely my decision to inform my private physician or anyone else of these results.

I understand that these tests are completely voluntary and that there is no charge to me for these tests. I have read this consent form and have been given the opportunity to ask questions which have been answered to my satisfaction.

Yes  No                      I consent to have my blood tested for HIV (AIDS).

Yes  No                      I consent to have my blood tested for Hepatitis B.

Signature of Exposed Person: \_\_\_\_\_ Date \_\_\_\_\_

Witness: \_\_\_\_\_ Date \_\_\_\_\_

**APPENDIX 7**

**Hepatitis B Status Form – C O N F I D E N T I A L**

<b>NAME</b>	<b>Banner ID #</b>	<b>1<sup>st</sup> Vac</b>	<b>2<sup>nd</sup> Vac</b>	<b>3<sup>rd</sup> Vac</b>	<b>Antibody Titer Test</b> <i>* See footnote if test is inadequate</i>

**\* Footnote: If the antibody titer test is reported as inadequate titer or “negative”, start the series over again (track this again). This blood test should be conducted 6 – 8 weeks after the 3<sup>rd</sup> vaccination. If they do not express the antibody after the second series they may want to consider their role as a designated first responder. Do not repeat the series a third time.**