

# SECTION 40 BLOODBORNE PATHOGENS

TULANE UNIVERSITY

ENVIRONMENTAL HEALTH  
AND SAFETY  
POLICIES AND  
PROCEDURES MANUAL

REVISION DATE: 3/9/09

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**BIOHAZARD**

*(Background should be fluorescent orange or orange/red with symbol and lettering in contrasting color usually black or white.)*

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(Contact the **Office of Environmental Health & Safety** if you do not have Internet access.)

## PHONE CONTACTS

### **Downtown New Orleans**

Bloodborne Pathogens Coordinator/OEHS	(504) 988-6608
Bloodborne Pathogens Emergency cell	(504) 419-1391
Office of Environmental Health and Safety	(504) 988-5486
Campus Security: Health Sciences Center	(504) 988-5531
Tulane University Hospital & Clinic Empl. Health	(504) 988-5525

### **TNPRC**

Occupational Health Nurse (business hours)	(985) 871-6600
Occupational Health Nurse pager (after hours)	(985) 966-6515
TNPRC	(985) 892-2040
TNPRC Police	(985) 871-6411
Redi-Med	(985) 626-3470
Lakeview Regional Medical Center's emergency line	(985) 867-4000
St. Tammy Parish Hospital's emergency line	(985) 898-4000

### **SHC and Uptown Campus**

Campus Security: Uptown	(504) 865-5200
Student Health Center	(504) 865-5255

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## ADDITIONAL READING

[Emergency Response](#) [Section 1](#)

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## BLOODBORNE PATHOGENS APPENDICES

### **Appendix 1 - [Standard Precautions Policy](#)**

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### **Appendix 3 - OSHA Bloodborne Pathogens Standard (29 CFR 1910.1030)**

(*See*, [www.osha.gov/SLTC/bloodbornepathogens/index.html](http://www.osha.gov/SLTC/bloodbornepathogens/index.html))

### **Appendix 4 - Needlestick Prevention and Safety Act**

(*See*, [http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=106\\_cong\\_public\\_laws&docid=f:publ430.106](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=106_cong_public_laws&docid=f:publ430.106))

### **[Appendix 5 - Hepatitis B Vaccine Declination Form](#)**

(*See*, Environmental Health & Safety Policies and Procedures Manual, *Appendix E*, [Form 27F-OEHS](#))

### **[Appendix 6 - First Report of Occupational Injury and Illness Form](#)**

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**Appendix 9 - EPA Approved Disinfectants**  
(See, [www.epa.gov/oppad001/chemregindex.htm](http://www.epa.gov/oppad001/chemregindex.htm))

**Appendix 10 - Information Provided to the Healthcare Practitioner Form**  
(See, Environmental Health & Safety Policies and Procedures Manual, *Appendix E*, Form [30F-OEHS](#))

**Appendix 11 - U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Postexposure Prophylaxis**  
(See, [www.cdc.gov/mmwr/preview/mmwrhtml/rr5011a1.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5011a1.htm) and [www.cdc.gov/mmwr/preview/mmwrhtml/rr5409a1.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5409a1.htm))

**Appendix 12 - Reportable Disease List - State of Louisiana**  
(See, [www.dhh.louisiana.gov/offices/page.asp?id=249&detail=6478](http://www.dhh.louisiana.gov/offices/page.asp?id=249&detail=6478))

**Appendix 13 - TNPRC SOP 5.3.2 Procedures for Employees Following Possible B Virus Exposure**  
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**Appendix 15 - Biosafety in Microbiological and Biomedical Laboratories 5th Edition**  
(See, [www.cdc.gov/od/ohs/biosfty/bmb15/bmb15toc.htm](http://www.cdc.gov/od/ohs/biosfty/bmb15/bmb15toc.htm))

**Appendix 16 - Recommendations for Prevention of and Therapy for Exposure to B Virus**  
(See, [www.cdc.gov/ncidod/diseases/BVIRUS.pdf](http://www.cdc.gov/ncidod/diseases/BVIRUS.pdf))

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## DEFINITIONS

**AIDS** stands for acquired immunodeficiency syndrome. AIDS is the last stage of an infection of the human immunodeficiency virus (see HIV) which attacks and weakens the body's natural immune system. Without a working immune system, infections and cancers occur which the individual would ordinarily be able to fight off.

**Blood** means whole blood, blood components, and products made from human or animal blood. It includes plasma, platelets, and serosanguinous fluids (e.g., exudates from wounds). Also included are medications derived from blood, such as immune globulins, albumin, and factors 8 and 9.

**Bloodborne Pathogens** means pathogenic microorganisms that are present in human blood or other potentially infectious material and can cause disease in persons who are exposed to blood containing the pathogen. The pathogens include, but are not limited to hepatitis B virus (HBV); human immunodeficiency virus (HIV) which causes acquired immunodeficiency syndrome (AIDS); hepatitis C virus (HCV); and pathogens causing malaria, syphilis, babesiosis, brucellosis, leptospirosis, arboviral infections, relapsing fever, Creutzfeldt-jakob disease, adult T-cell leukemia/lymphoma (caused by HTLV-I), HTLV-I associated myelopathy, diseases associated with HTLV-II, and viral hemorrhagic fever.

**Contaminated** means the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

**Contaminated Laundry** means laundry which has been soiled with blood or other potentially infectious materials or that may contain sharps.

**Contaminated Sharps** means any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wires.

**Decontamination** means the use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.

**Engineering Controls** means controls (e.g., sharps disposal containers, self-sheathing needles or shielded needle devices, needleless devices, blunt needles, plastic capillary tubes) that isolate or remove the bloodborne pathogens hazards from the workplace.

**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.

**Handwashing Facilities** means a facility providing an adequate supply of running potable water, soap and single use towels or hot air drying machines.

**Hepatitis B Virus (HBV)** is a virus that attacks the liver and can lead to lifelong infection: Cirrhosis (scarring) of the liver, liver cancer, liver failure, and death. It is transmitted through bloodborne, sexual, and perinatal transmission. There is a vaccine available to help protect against acquiring Hepatitis B.

**Hepatitis C Virus (HCV)** is a virus that attacks the liver and can lead to cirrhosis and liver cancer. It is transmitted through contact with infected blood, contaminated needles, razors, and tattoo or body piercing tools as well as from mother to infant. Currently there is no vaccine effective against HCV.

**Herpes B** also known as *Herpesvirus simiae*, *Cercopithecine herpesvirus-1*, or B-Virus, is a member of the herpes group of viruses that occurs naturally in Macaque monkeys and possible in other Old World monkeys.

**High Risk Employee** means an employee who has ongoing contact with patients or blood/body fluids and is at ongoing risk for injuries with sharp instruments or needlesticks.

**HIV** means human immunodeficiency virus. HIV causes the disease AIDS.

**Licensed Health Care Professional** is a person whose legally permitted scope of practice allows him or her to independently perform the activities of administering Hepatitis B vaccination and Post-exposure evaluation and follow-up.

**Needleless System** means a device that does not use needles for: 1) the collection of body fluids or withdrawal of body fluids after initial venous or arterial access is established; 2) the administration of medication or fluids; 3) any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps.

**Non-intact Skin** includes skin with dermatitis, hangnails, cuts, abrasions, chafing, acne, etc.

**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. It includes the potential for contact as well as actual contact with blood or other potentially infectious materials (including regulated waste) as well as incidents of needlesticks.

**Other potentially infectious materials (OPIM)** means 1) 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; 2) Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and, 3) 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.

**Parenteral** means piercing mucous membranes or the skin barrier through such events as needlesticks, human bites, cuts, and abrasions.

**Personal Protective Equipment** 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.

**Production Facility** means a facility engaged in industrial-scale, large volume or high concentration production of HIV or HBV.

**Regulated Medical Waste** means liquid or semi-liquid blood more than 100 cc's, pooling in container and/or the item drips; contaminated items that would release blood or OPIM in a liquid or semi-liquid state if compressed; items that are caked with dried blood (could flake off) and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or OPIM.

**Research Laboratory** means a laboratory producing or using research laboratory scale amounts of HIV or HBV. Research laboratories may produce high concentrations of HIV or HBV but not in the volume found in production facilities.

**Sharps with Engineered Sharps Injury Protections** means a non-needle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery or administering medications or other fluids, with a built-in safety feature or mechanism that effectively reduces the risk of an exposure incident.

**SIV** (simian immunodeficiency virus) is a lentivirus that causes a disease in monkeys similar to AIDS and that is closely related to HIV-2

**Source Individual** means any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee. Examples include, but are not limited to, hospital and clinic patients, clients in institutions for the developmentally disabled, trauma victims, clients of drug and alcohol treatment facilities, residents of hospices and nursing homes, human remains, and individuals who donate or sell blood or blood components.

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

**Sterilize** means the use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.

**Work Practice Controls** means controls that reduce the likelihood of exposure by altering the manner in which a task is performed such as prohibiting recapping of needles by a two-handed technique.

## **I. Bloodborne Pathogens**

### A. Policy

### B. Exposure Control Plans

### C. Responsibilities

#### 1. Control of Occupational Exposures Committee (COEC)

#### 2. Policy Committee

#### 3. Office of Environmental Health & Safety (OEHS)

#### 4. Bloodborne Pathogens Coordinator

#### 5. Human Resources

#### 6. Tulane University Supervisors (TU Supervisors)

#### 7. Tulane University Employees

#### 8. Workers Compensation Specialist

#### 9. Legal Counsel

#### 10. Facilities Services

### D. Campus-specific Responsibilities

#### 1. Tulane University Health Sciences Center (TUHSC)

#### 2. Tulane National Primate Research Center (TNPRC)

#### 3. SHC (Uptown and Downtown Clinics)

#### 4. Uptown Campus



## **I. BLOODBORNE PATHOGENS**

### **A. Policy**

Tulane University (TU) is committed to protecting and providing a safe environment for employees whose work involves a potential for occupational exposure to blood and other potentially infectious materials with the hope of preventing injuries, illnesses, and possibly death. In support of this commitment and in compliance with the **Occupational Health and Safety Administration's (OSHA) Bloodborne Pathogen Standard (29 CFR 1910.1030)** designed to protect health care and other workers at risk of occupational exposure to bloodborne pathogens (including but not limited to HBV, HCV, and HIV), this Exposure Control Plan has been developed. Provisions of the OSHA Standard, including standard precautions, is strictly enforced at all campuses and requires that:

1) employees are educated and trained to work safely with blood and other potentially infectious materials, 2) that available vaccines for protection against bloodborne infectious diseases are encouraged and provided without cost to the employee.

### **B. Exposure Control Plan (ECP)**

The Exposure Control Plan is available to all employees as part of this manual and online via Tulane's Office of Environmental Health & Safety (OEHS) website at

[www.som.tulane.edu/oehs/Bbpecp.html](http://www.som.tulane.edu/oehs/Bbpecp.html). The aim of the Exposure Control Plan is to eliminate or minimize employee exposure to bloodborne pathogens and other potentially infectious materials.

The plan shall be reviewed and updated at least annually and whenever necessary to reflect: 1) new or modified tasks and procedures that affect occupational exposure; 2) new or revised work practices or engineering controls; and 3) new or revised employee positions that would include occupational exposure. The ECP is reviewed by the Bloodborne Pathogens Coordinator, OEHS, and assigned administrative personnel for each campus. Recommendations for revisions and/or updates to the plan are made to TUHSC's COEC for their review and approval and sent to the Policies Committee for final approval. Employees failing to comply with the plans may face disciplinary action.

All contracted, temporary, and volunteer employees will also be expected to follow Exposure Control Plans in the course of their duties while on Tulane premises.

### C. Responsibilities

1. Control of Occupational Exposures Committee (COEC) responsible for annual review, assessment, and approval of the Exposure Control Plan, and for assisting in solving any problems with its implementation.
2. Policy Committee is responsible for final review and approval of the Exposure Control Plan.
3. Office of Environmental Health & Safety (OEHS) is responsible for:
  - a. posting updates of the Exposure Control Plan on its website [www.som.tulane.edu/oehs/Bbpecp.html](http://www.som.tulane.edu/oehs/Bbpecp.html).
  - b. participating as a representative during an OSHA inspection.
  - c. assisting in monitoring engineering and work practice controls, personal protective equipment, housekeeping, waste disposal, decontamination, and communication of hazards to employees (signs and labels).
  - d. ensuring that a method is in place to properly dispose of potentially infectious biomedical waste in accordance with federal, state and local regulations.
  - e. ensuring certification of biological safety cabinets at least annually. This includes changing filters and decontaminating as needed.
  - f. maintaining a confidential Sharps Injury Log independently from OSHA 300 Log to help track trends in sharps related occupational exposures. The Sharps Injury Log will be completed when an accident occurs that involves an occupational exposure to a potentially infectious substance via needlestick or other sharps injury. The log is reviewed at least annually as part of the annual evaluation of the program and is maintained for at least five years following the end of the calendar year they cover. All personal and confidential identifiers are removed before copying or printing.
  - g. responding on a 24-hour basis to calls regarding blood and biospills within the University. OEHS can be reached by phone (504) 988-5486.

4. Bloodborne Pathogens Coordinator (BBP Coordinator), a member of OEHS, is responsible for:
- a. reviewing and updating (at least annually) the Exposure Control Plan, assessment of the plan to ensure its appropriateness, and for making recommendations to the COEC. The BBP Coordinator is also responsible for assisting in the development and administration of any additional related policies and practices required to ensure the ECP's effectiveness.
  - b. participating as a representative in an OSHA inspection.
  - c. providing orientation and annual education and training (in-service and/or web-based) on bloodborne pathogens regulations and recommendations and keeping appropriate training records. (*See, [BBP Online Training Course](#).*) The BBP Coordinator shall also notify at-risk employees when annual training is due.
  - d. reviewing surveys and/or inspections, where applicable, to assist in solving problems associated with bloodborne pathogens.
  - e. ensuring that the HBV vaccine is available, free of charge, to all employees who are at risk or occupational exposure and that antibody tests are also made available free of charge to all high risk employees. Non-responders to the vaccine will be offered additional vaccine series free of charge in accordance with current Centers for Disease Control (CDC) recommendations.
  - f. keeping confidential active medical records on exposure incidents and monitoring the management of occupational exposures to bloodborne pathogens. The BBP Coordinator will notify the COEC and administrative personnel of trends and/or problem areas that need to be addressed. The BBP Coordinator will perform ongoing surveillance of all exposures and review each exposure incident to determine ways to prevent future occurrences. In areas where the BBP Coordinator determines that injuries have been incurred during the same procedure, using the same equipment, in the same location, or among similar employees, alternative engineering controls and work practices that may reduce exposures are considered, evaluated, and instituted where necessary.
  - g. ensuring counseling is available to employees after an exposure incident and as requested, and/or arranging a referral or consultation with an infectious disease physician.
  - h. working with the healthcare facility where the bloodborne exposure occurred to obtain source blood laboratory test results for HIV, HBV, and HCV when applicable.
  - i. ensuring that the treating healthcare professional is provided with the necessary information for medical management of the occupational exposure.
  - j. ensuring that the testing laboratory stores and preserves (for a minimum of 90 days) the blood of an employee who consents to baseline collection after an occupational exposure but who does not give consent for HIV serologic testing at that time. The employee may later opt to have the baseline sample tested.

5. Human Resources (HR) shall be responsible for:
  - a. scheduling bloodborne pathogens orientation for all new employees or those transferring to at-risk positions before assignment to the work area.
  - b. determining which employees must be offered the HBV vaccine series. This offer of vaccination must be extended to all existing at-risk employees, at the time of transfer to at-risk positions and at the time of employment for new employees.
  - c. providing and updating lists of job classifications where all or some employees have occupational exposure, as well as a list of all tasks and procedures in which occupational exposure occurs. This information shall be forwarded to OEHS for inclusion in revised editions of Exposure Control Plans.
  - d. providing the BBP Coordinator with a list of employees who must be educated in the subject of bloodborne pathogens. This must be done for all existing at-risk employees, at the time of transfer to at-risk positions, at the time of employment for new employees, and at the time of termination.
  
6. Tulane University Supervisors (TU Supervisors) can include, but are not limited to, department heads, directors, or managers. They are responsible for:
  - a. ensuring that HR and the BBP Coordinator are notified prior to hiring employees who may have potential exposure to bloodborne pathogens and upon termination of these employees.
  - b. ensuring that their at-risk employees receive the HBV vaccine series or sign declination form a) as soon as possible for existing employees and b) at the time of assignment for new or transferring employees. Each department is responsible for accepting charges incurred for providing hepatitis B vaccine series or antibody testing for employees with exposure to bloodborne pathogens.
  - c. ensuring that their at-risk employees are trained in bloodborne pathogens procedures and that this training is documented as soon as possible for existing employees, prior to job assignment for new or transferring employees, and annually thereafter if continued to be employed by Tulane in an at-risk position.
  - d. following and enforcing the Standard Precautions Policy ([BBP Appendix 1](#)). Supervisors shall also take disciplinary action should an employee fail to comply with University policies.
  - e. ensuring that employees follow procedures and use the appropriate equipment correctly. Supervisors must make certain that personal protective equipment (PPE) is available, appropriate, and provided free of charge to employees. They must ensure that contaminated PPE is properly laundered, cleaned, disposed of, and/or replaced as necessary.
  - f. ensuring that equipment is properly decontaminated, and that the decontamination and clean-up of blood/body fluids or spills is handled in an appropriate manner.
  - g. following-up exposure incidents with a signed First Report of Occupational Injury/Illness Form and directing exposed employees to an appropriate facility for medical evaluation and treatment ([BBP Appendix 6, Form 18F-OEHS](#)).

- h. performing inspections and surveys, if applicable to the supervisor's area, noting problems contributing to exposure to bloodborne pathogens and taking appropriate steps or instituting changes to correct these problems. Inspections and surveys (copies) must be sent to OEHS for review.
  - i. investigating occurrences in which an employee exercises professional judgment not to use PPE and documenting whether changes should be made in the future to eliminate factors that lead to such judgment in the future. A copy of such documentation must be sent to OEHS.
  - j. assisting in the evaluation of work practices and engineering controls to determine the appropriateness of same.
  - k. ensuring that safer needle devices are provided, if applicable.
  - l. ensuring that employees adhere to current guidelines for transporting or shipping hazardous materials.
7. Tulane University Employees shall be responsible for:
- a. attending orientation and participating in training sessions annually if in an at-risk position.
  - b. obtaining the HBV vaccine or signing the declination form as soon as possible for existing at-risk employees, at the time of transfer to an at-risk position, and/or at the time of employment for new at-risk employees. ([BBP Appendix 5, Form 27F-OEHS](#))
  - c. following this Exposure Control Plan and the Standard Precautions Policy ([BBP Appendix 1](#)).
  - d. reporting exposure incidents to their supervisor and completing the First Report of Injury and Illness Form and EPINet Forms, if applicable ([BBP Appendix 6, Form 18F-OEHS](#), and [BBP Appendix 7, Form 28F-OEHS](#), and [BBP Appendix 8, Form 29F-OEHS](#)).
  - e. pursuing follow-up care at an appropriate healthcare facility following an exposure incident.
  - f. using work practices, engineering controls, and PPE as outlined in this Exposure Control Plan.
8. Workers Compensation Specialist is responsible for ensuring that a post-exposure evaluation and follow-up is documented and provided, free of charge, to all employees who have an occupational exposure.
9. Legal Counsel will be responsible for:
- a. ensuring that contracts regarding affiliations with other schools and universities, per diem employees, satellite physicians, and other persons who may be exposed on Tulane University premises, comply with this Exposure Control Plan.
  - b. reviewing forms and official legal documents for compliance with OSHA's [Bloodborne Pathogens Standard](#).

- c. assisting Tulane administration and unit personnel (i.e., department, center, program personnel) in developing and administering any additional bloodborne pathogens-related policies and practices deemed necessary.
  - d. assisting in resolving any legal issues involving bloodborne pathogens as they relate to employment, termination, etc.
10. Facilities Services is required to adhere to all policies and procedures outlined in this Exposure Control Plan (including the [Appendix 1, Standard Precautions Policy](#)) when performing any maintenance or repair of facilities or equipment on campus.

#### D. Campus-specific Responsibilities

1. Tulane University Health Sciences Center (TUHSC) in addition to the other responsibilities listed in [Section I, C](#) of this document, the following additional responsibilities apply to TUHSC:
  - a. The Laundry Supervisor will ensure:
    - 1) off-site laundry facilities comply with laundry policies outlined in this Exposure Control Plan.
    - 2) all in-house employees who handle laundry will practice standard precautions, follow laundry policies outlined, and receive annual bloodborne pathogens training.
    - 3) that contaminated laundry is placed in readily available bags labeled with the biohazard symbol ([BBP Appendix 2](#)). If there is a potential for liquid seepage, laundry personnel will ensure that appropriate bags that are designed to prevent seepage are used.
  - b. The Housekeeping Supervisor is responsible for:
    - 1) decontamination and cleanup where incidents involving bloodborne pathogens and other potentially infectious materials occur. All employees responding to such decontamination and/or clean-up must practice standard precautions and receive annual bloodborne pathogens training.
    - 2) ensuring the housekeeping department arranges for the disposal of waste materials involving bloodborne pathogens and other potentially infectious materials in an appropriate manner in accordance with all federal, state, and local regulations. Please refer to OEHS Policy on Hazardous Material (See, Environmental Health & Safety Policies and Procedures Manual, [Section 29](#), for additional information.
  - c. The Director of Graduate Medical Education is responsible for the following:
    - 1) ensuring that medical residents follow the policies contained in this Exposure Control Plan.
    - 2) ensuring that residents receive the training required by this Exposure Control Plan.
    - 3) ensuring that the residents are offered the HBV vaccine, and that they are provided with post-exposure evaluation and follow-up when indicated.

- d. The Deans of the Medical School and the Deans of the School of Public Health and Tropical Medicine will be responsible for the following:
  - 1) ensuring that the Human Resource department is notified prior to hiring faculty members who may have potential exposure to bloodborne pathogens, and upon termination of these members.
  - 2) ensuring that orientation is provided to all new bloodborne-exposed faculty members or those transferring to at-risk positions before assignment to the work area. Orientation can be scheduled through the human resources department.
2. Tulane National Primate Research Center (TNPRC) - in addition to the other responsibilities listed in [Section I.C](#) of this document, the following additional responsibilities apply to TNPRC:
  - a. Veterinary Medicine will:
    - 1) ensure laundry facilities comply with laundry policies outlined in this Exposure Control Plan.
    - 2) ensure that all employees who handle laundry practice standard precautions, follow laundry policies outlined, and receive annual bloodborne pathogens training as indicated.
    - 3) ensure that contaminated laundry is placed in readily available, appropriately labeled biohazard bags that prevent liquid seepage if such a potential exists.
  - b. Occupational Health Nurse (OHN) at TNPRC is responsible for:
    - 1) providing initial orientation education and training on bloodborne pathogens regulations and recommendations and keeping appropriate training records. Copies of training documentation should be made available upon request to the Chair of the TNPRC Safety Committee and the BBP Coordinator.
    - 2) management of the HBV vaccine series for all potentially bloodborne exposed employees at TNPRC. The OHN is responsible for offering and administering the Hepatitis B vaccine series and/ or antibody tests to all at-risk employees and notifying employees when the next dose is required and recordkeeping of all HBV consent/declination forms. This includes informing them of the HBV vaccination policies and procedures and assuring that the vaccine is administered or the declination form is signed. All records when complete should be turned over to the BBP Coordinator.
    - 3) keeping confidential medical records on exposure incidents and monitoring the management of occupational exposures to bloodborne pathogens. These records shall be provided to BBP Coordinator on request for review. The nurse shall inform the BBP Coordinator as soon as possible or at the time of injury when an employee reports an occupational exposure to bloodborne pathogens.
    - 4) providing counseling and recommendations to employees after an occupational exposure in accordance with the recommendations from the U.S. Public Health Service and Centers for Disease Control ([BBP Appendix 11](#)). The OHN will arrange a referral

or consultation with an infectious disease physician when indicated or as requested. The OHN shall ensure that any treating healthcare professional is provided with the necessary information for medical management of the occupational exposure and shall write (if applicable) or obtain a written opinion from the treating healthcare professional, a copy of which shall be provided to the employee within 15 days of completion of the evaluation.

- 5) assisting with the completion of a [First Report of Injury Forms](#) to be faxed to OEHS at (504) 988-2196. OHN will treat employee using standard first aid techniques and established standing orders at the TNPRC Occupational Health Clinic.
  - 6) obtaining a source specimen (when applicable) for laboratory testing and making those results available to the BBP Coordinator.
  - 7) providing data analysis and report on occupational exposures to the TNPRC Safety Committee, and the COEC.
- c. The Director of TNPRC will be responsible for the following aspects of the Exposure Control Plan:
- 1) ensuring that Human Resources and the Occupational Health Nurse are notified prior to hiring faculty members who may have potential exposure to bloodborne pathogens, and upon the termination of these faculty members. This should be done before assignment to the work area for all existing at-risk faculty, at the time of transfer to at-risk positions, and at the time of employment for new faculty.
  - 2) ensuring that Human Resources and the Occupational Health Nurse are provided with a list of faculty who must be offered the HBV vaccine series. This should be done for all existing at-risk faculty, at the time of transfer to at-risk positions, at the time of employment for new faculty, and at the time of termination.
- d. The Tulane National Primate Research Center Safety Committee will be responsible for the following aspects of the Exposure Control Plan:
- 1) annual and ongoing review and assessment of the Exposure Control Plan to ensure its appropriateness.
  - 2) participating in an OSHA inspection.
  - 3) reviewing inspection reports and assisting in problems regarding proper engineering and work practice controls, personal protective equipment, housekeeping, waste disposal, decontamination, special requirements for research labs and production facilities handling bloodborne pathogens (including SIV/SHIV, Herpes B, HIV, HBV), and communication of hazards to employees.
  - 4) evaluating reports of occupational exposure from the Occupational Health Nurse and providing recommendations where indicated.
3. SHC (Uptown and Downtown Clinics) - in addition to the other responsibilities listed in [Section I.C](#) of this document, the following additional responsibilities apply to the SHC:

- a. The Nurse Manager will ensure that all employees in the Student Health Center practice Standard Precautions and receive annual bloodborne pathogens training if indicated.
  - b. All reports of bloodborne pathogens exposures and injuries involving Tulane University students and employees will be reported to the Bloodborne Pathogens Coordinator to monitor for trends or areas of need.
  - c. Reports of bloodborne pathogens injury or exposure can be faxed confidentially to the Bloodborne Pathogens Coordinator at (504) 988-2297.
4. Uptown Campus - in addition to the other responsibilities listed in [Section I,C](#) of this document, the following additional responsibilities apply to the Uptown Campus:
- a. Tulane Emergency Medical Service (TEMS) is the student run basic-level ambulance service providing care to Tulane students and staff. TEMS will transport patients to the hospital of their choice when necessary.
  - b. TEMS can be reached for emergencies at Tulane ext. 5200 or (504) 865-5200 from an off-campus phone.
  - c. TEMS will participate in training, HBV vaccination, and other policies outlined in this plan.

## II. Exposure Control Plan

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## II. EXPOSURE CONTROL PLAN

### A. Exposure Determination

All employees who may reasonably be expected to be exposed to bloodborne pathogens while performing assigned job duties must participate in this bloodborne program. These duties can include, but are not limited to, the following:

- drawing of blood
- processing blood or body fluids for experimentation
- using unfixed animal or human tissue in preparations or experimentation
- working in an area where HIV or HBV is produced or research is being performed
- cleaning glassware contaminated with blood or OPIM
- disposing of waste contaminated with blood or OPIM
- transporting blood or OPIM
- working in a laboratory area where equipment or work benches can become contaminated either by a spill or accident
- handling spills or containers of infectious wastes
- cleaning blood spills, including dried blood
- handling laundry soiled with blood, OPIM, or sharps
- performing lifesaving procedures including CPR
- work that may involve first aid, removing bandages or have potential exposure to blood or OPIM in any way

1. Job classifications in which all employees have occupational exposures are:

NONE

2. Job classifications in which some employees have occupational exposures are:

- Physicians, Residents, Interns, PA's
- Veterinarians and veterinarian staff

- Nursing Staff: RN's, LPN's, NA's, NP's, managers, coordinators
- Program/Research Coordinator (scientific areas)
- Secretarial staff (scientific departments)
- Laundry staff
- Social worker
- Facilities services staff
- Housekeeping
- Athletic personnel (coaches, assistants)
- Instructors/Professors/Faculty
- OEHS staff
- Childcare Workers
- Biomedical department
- Safety/Security Personnel
- Animal Care Tech/Trainee
- Plant operations staff
- Laboratory Staff (including medical research specialists/techs, research scientists, lab assistants/techs, research fellows)

3. Closely related tasks and procedures in which there is the potential for occupational exposure by employees listed include:

- Injections
- Handling refuse
- Housekeeping
- Decontaminating processes
- Lab work/experimentation
- Sharps/Biomedical waste disposal
- Rendering fist aid
- Arrests
- Handling human tissue/blood products
- Transporting biomedical lab specimens
- Cleaning blood contaminated equipment/surfaces

## **B. Methods of Compliance**

In its enforcement of the OSHA Bloodborne Pathogens Standard (29 CFR 1910.1030) and the Needlestick Safety and Prevention Act (Pub. L. 106-430) ([BBP Appendix 3](#) and [Appendix 4](#)), Tulane recognizes that engineering and work practice controls are necessary to eliminate or minimize employee exposure. Tulane University complies with the current standards requiring the (1) annual consideration and implementation of appropriate engineering controls and (2) solicitation of non-managerial health care workers responsible for direct patient care included in the selection and evaluation when choosing devices. When engineering and work practices do not eliminate exposure, the use of personal protective equipment is required.

If engineering or work practice controls are to be effective, employee acceptance and employee training are required. All employees are encouraged to assist in evaluation of engineering controls or work practices and to identify opportunities to eliminate or minimize exposures. Tulane University solicits input from employees responsible for the direct care of any individual who may have potentially been infected with bloodborne pathogens for the identification, evaluation, and selection of effective engineering and work practice controls. All employees having a documented

occupational exposure incident involving bloodborne pathogens are specifically contacted for their input.

## 1. **Engineering Controls**

Where engineering controls will reduce employee exposure either by removing, eliminating, or isolating the hazard, they must be used. Examples of engineering controls include safe medical devices such as needleless devices, shielded needle devices, plastic capillary tubes, needleless or shielded needle IV line access, blunt suture needles, safer syringes, and safer phlebotomy devices.

Engineering controls must be examined and maintained or replaced on a regular schedule to ensure their effectiveness. Supervisors should conduct regularly scheduled inspections to confirm, for instance, that engineering controls such as safer devices continue to function effectively, that protective shields have not been removed or broken, and that physical, mechanical, or replacement-dependent controls are functioning as intended, with concerns being reported to the BBP Coordinator and/or COEC for further consideration, review, and recommendations.

- a. Safe medical devices are generally of two types: needleless systems (e.g., needleless IV connectors) and sharps with engineered sharps injury protection (e.g., self-sheathing needles on syringes). Substitution methods such as the use of plastic (instead of glass) capillary tubes are also available.
- b. The following design features for needle safety devices are important in preventing percutaneous injury:
  - 1) A fixed safety feature provides a barrier between the hands and the needle after use. The safety feature should allow or require the worker's hands to remain behind the needle at all times.
  - 2) The safety feature is an integral part of the device and not an accessory.
  - 3) The safety feature is in effect before disassembly and remains in effect after disposal to protect users and trash handlers, and for environmental safety.
  - 4) The safety feature is as simple as possible, and requires little or no training to use effectively.

## 2. **Work Practice Controls**

Work practice controls to minimize exposure include, but are not limited to, a no-hands procedure in handling contaminated sharps, eliminating hand-to-hand instrument passing, handwashing, no mouth pipetting, no food or drink in areas containing bloodborne pathogens, etc.

- a. Hand washing facilities with soap dispensers are readily accessible to employees. When hand washing facilities with soap dispensers are not feasible, an alcohol based waterless antiseptic hand cleaner is made available. When this is used, hands must be washed with soap and water as soon as feasible. Employees must wash their hands immediately or as soon as possible after removal of gloves or other PPE.

- b. Shearing, breaking, bending, recapping, or removing of contaminated needles or contaminated sharps is prohibited. If an employee feels that he/she must use these procedures, the employee must give written justification to the BBP Coordinator stating that no alternative is feasible. The BBP Coordinator must review the circumstances and document with reliable evidence that no alternative is feasible. These exceptions would then be included in the next update of the Exposure Control Plan.
- c. Closable, leak-proof puncture resistant sharps containers with a biohazard symbol ([BBP Appendix 2](#)) are available in all areas where contaminated sharps are used. Needles, sharps, or instruments must never be manipulated once placed in the sharps container.
- d. Any procedure (use of sprays, brushes, and high pressure in equipment lines) that could generate splashes, sprays, or droplets of blood or OPIM is particularly hazardous and would necessitate the use of eye protection and mask or face shield to prevent contamination of the mucous membranes.
- e. Eating, drinking, applying cosmetics, handling contact lenses, or other personal hygiene measures are prohibited in work areas where there is the presence of or likelihood of contact with blood/body fluids. Food and drink must not be kept in refrigerators, freezers, shelves, cabinets, or on countertops or bench tops where blood/body fluids are present. Food preparation (cooking, heating food) must not be performed in areas where blood/body fluids are present.
- f. Mechanical pipetting devices must be used for the manipulation of all liquids in the laboratory. Mouth pipetting is not allowed.
- g. Regulated medical waste and all blood/ body fluid specimens must be placed in a well-constructed container with a closed secure lid and must be labeled with a biohazard label on the container or the impervious bag during collection, handling, processing, storage, transport, or shipping to prevent leakage. A second container, such as an impervious bag, must be used for transport. If outside contamination of the primary specimen container occurs, this primary container must be placed in a second properly labeled specimen container or an impervious bag to prevent leakage during handling, processing, storage, transport or shipping. If a specimen could puncture the primary container, this container must be placed within a secondary container which is puncture-resistant.
- h. Employees shall dispose of regulated medical waste and other potentially infectious materials contaminated with visible blood in appropriate receptacles and hazardous waste areas designated by Tulane University.
- i. If equipment cannot be decontaminated and cleaned prior to shipping or repair, the equipment must be labeled with a biohazard symbol ([BBP Appendix 2](#)) and a statement describing which portions of the equipment remain contaminated. This information must be conveyed to all involved employees, the servicing representative, and/or the manufacturer prior to handling, servicing, or shipping so that appropriate precautions can be taken.

### 3. **Personal Protective Equipment (PPE)**

Tulane University enforces use of personal protection equipment (PPE) as outlined in the Standard Precautions Policy ([BBP Appendix 1](#)) and this ECP. Examples of PPE consist of

gloves, gowns/aprons/hospital coats, masks, protective eyewear or faceshields. These are provided at no cost to the employee and are chosen based on the anticipated exposure to blood or other potentially infectious materials. The protective equipment will be 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 time in which the protective equipment will be used. Employees shall wear protective clothing when at risk for exposure.

All Tulane Supervisors/Managers shall ensure that PPE is accessible and appropriate sizes are available. Tulane University is responsible for the repair or replacement of personal protective equipment as needed to maintain its effectiveness. If you observe a problem regarding this, please contact the Office of Environmental Health and Safety at (504) 988-5486 for assistance.

If an employee exercises professional judgment that, in the specific instance or procedure, the use of personal protective equipment would have posed an increased hazard to the safety of the worker or co-worker, then the supervisor or immediate manager will investigate and document whether to institute changes to eliminate this in the future. A copy of such documentation should be sent to OEHS and the BBP Coordinator.

Home laundering of PPE is not permitted. Laundering will be provided at no cost to the employee. If the employee wishes to wear and maintain his/her own uniform or laboratory coat, then he/she would need to don additional employer-handled and employer-controlled PPE when performing tasks where it is reasonable to anticipate exposure to blood or other potentially infectious materials. Employees must wash up and change any contaminated clothing or PPE before leaving a work area.

If PPE fails to contain exposure to blood/body fluids, the employee should remove the contaminated protective equipment and clothing. Exposed skin or mucous membranes should be washed and cleaned thoroughly. Employees should then follow post-exposure evaluation and follow-up procedures.

a. **Gloves**

- 1) TU Supervisors are responsible for providing appropriate gloves in all areas where blood/body fluids are handled.
- 2) Gloves that are peeling, cracking, discolored, have punctures, tears, or other evidence of compromised barrier should be discarded immediately. These will be replaced as needed at no cost to the employee.
- 3) Disposable gloves should not be washed or decontaminated for re-use.
- 4) Utility gloves may be decontaminated for re-use if the integrity of the glove is not compromised. If the integrity of the glove is compromised, (i.e., cracked, peeling, torn, punctured, change in color) it must be discarded immediately.
- 5) Gloves should be removed prior to leaving the work area and should be either discarded or decontaminated depending on the type of glove.
- 6) Hypoallergenic gloves, synthetic (non-latex) gloves, glove liners, and powderless gloves are available for use in any area of Tulane University requiring the use of gloves.

- 7) Hand washing or using a waterless hand cleaner after glove removal is required.
- 8) Gloves must be used where there is reasonable anticipation of employee hand contact with blood, other potentially infectious materials (OPIM), mucous membranes, or non-intact skin; when performing vascular access procedures; or when handling or touching contaminated surfaces or items.
- 9) Plastic film food handling gloves are not considered appropriate for use in exposure-related tasks.

b. **Protective Eyewear, Masks, and Faceshields**

Protective eyewear, masks, or faceshields must be worn to protect the mucous membranes of the eyes/face from anticipated exposure to blood or OPIM when exposure is possible. TU Supervisors are responsible for providing such equipment in areas where there is the potential for eye/face contact with blood/body fluids. Protective eyewear should be removed prior to leaving the work area and decontaminated as necessary.

c. **Gowns, Aprons, Lab coats, or Protective Body Clothing**

- 1) TU Supervisors are responsible for providing various sizes of gowns/aprons or other protective clothing in all areas where there is the potential for splash of blood/body fluids onto the clothing. These should be removed prior to leaving the work area and decontaminated or discarded as necessary.
- 2) Fabric lab coats are not impervious to blood and OPIM and should not be used as personal protective equipment. However, lab coats should be available and should be worn over street clothes while working in the clinical or laboratory areas. Lab coats should be removed before leaving laboratory areas.
- 3) Non-disposable gowns/aprons or protective clothing used as personal protective equipment are laundered by TU at no cost to the employee. Contaminated protective clothing must not be taken home to be laundered.
- 4) Employees must evaluate the task and the type of exposure anticipated and, based upon the determination, select the appropriate protective clothing which would resist penetration.
- 5) Shoes constructed of solid leather or equivalent material that tends to shed liquid and completely enclose the foot are recommended for work involving possible bloodborne pathogen exposure.

d. **Respiratory Equipment**

- 1) Respiratory equipment is readily available and accessible to employees who can reasonably be expected to perform resuscitation procedures. Only trained personnel should use this equipment.

### C. Housekeeping

1. Contaminated work surfaces must be decontaminated with an EPA approved disinfectant ([BBP Appendix 9](#)) 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.
2. Contaminated instruments shall be decontaminated after completion of procedures with an EPA approved disinfectant ([BBP Appendix 9](#)) and autoclaved when necessary.
3. Protective coverings, such as plastic wraps, aluminum foil, imperviously-backed absorbent paper, or other materials used to cover equipment or work surfaces should be removed and replaced as soon as feasible when they become overtly contaminated or at the end of the work shift if they become contaminated during the shift.
4. All bins, pails, trash cans, and similar receptacles intended for re-use that have a reasonable likelihood for becoming contaminated with blood/body fluids should be inspected daily and cleaned and decontaminated immediately or as soon as feasible when visibly contaminated.
5. Broken glassware which may be contaminated should not be picked up directly with the hands. Broken glass should be removed by mechanical means such as a brush and dust pan, tongs, or forceps while wearing gloves.
6. Reusable sharps that are contaminated with blood/body fluids should not be stored or processed in a manner that requires employees to manipulate these sharps by hand or reach by hand into the containers where these sharps have been placed.

### D. Regulated Waste

1. Employees shall dispose of regulated medical waste or OPIM in containers which are: closable; constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping; labeled as biohazard or color-coded as indicated in this Exposure Control Plan; and 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 must be placed in a secondary container with the same specifications as stated for the primary container.
2. Regulated medical waste or OPIM waste generated at the TU will be appropriately disposed of in accordance with federal, state, and local regulations.
3. Contaminated sharps should be discarded immediately or as soon as feasible in containers that are: closable; puncture resistant, leak-proof on sides and bottom, and labeled as biohazard and color-coded as indicated in this Exposure Control Plan. Self-sheathing needle products must be disposed of in a proper sharps container. The needle sheath is not to be considered a "waste container."
4. Sharps containers should be maintained in an upright position as close as feasible to where sharps are used or can reasonably be anticipated to be found (e.g., laundry area).

5. Sharps containers must be replaced when the container is 2/3 full. Reusable containers shall not be opened, emptied, or cleaned manually or in any other manner which would expose employees to the risk of percutaneous injury.
6. When transporting or moving sharps containers from the area of use, the sharps container should be closed immediately prior to removal or replacement to prevent spillage or protrusion of contents during handling, storage, transport, or shipping. If sharps are protruding from the mouth of the container, never manipulate the sharps by hand. Place the container on a surface where you can have complete visualization of the mouth of the container, then use an intermediate instrument (i.e., forceps) to manipulate or remove the sharps so the container can be closed and sealed. Sharps containers should be placed in a second container with a biohazard symbol ([BBP Appendix 2](#)) that is puncture resistant, leakproof, and closable.

#### **E. Laundry**

1. The Laundry Supervisor is responsible for ensuring that contaminated PPE is properly laundered, cleaned, or disposed. This must be provided at no cost to the employee. Contaminated PPE must be properly laundered even when performed by any outside laundry facility.
2. Employees who have contact with contaminated laundry should follow the Standard Precautions Policy ([BBP Appendix 1](#)) and wear appropriate PPE.
3. Contaminated laundry should be handled as little as possible with a minimum of agitation. It should be bagged where it is used and should not be sorted or rinsed in the location of use.
4. Contaminated laundry that is shipped off-site will be placed and transported in appropriate bags that are labeled with the biohazard symbol and that prevent liquid seepage when such a potential exists.
5. Any problems concerning laundry can be forwarded to the linen room (part of Materials Management) downtown at (504) 988-5104 or uptown at (504) 865-5211.

#### **F. Hazard Communication**

1. A biohazard symbol ([BBP Appendix 2](#)) should be affixed to containers of regulated waste; refrigerators and freezers containing blood/body fluids; and other containers used to store, transport, or ship blood/body fluids. [BBP Appendix 2](#) shows a typical biohazard symbol that should be used to label the above mentioned containers. The biohazard symbol should have a fluorescent orange or orange-red background with letters and the symbol itself in contrasting colors (usually black or white). Biohazard symbols should be affixed as close as feasible to the container by methods that prevent their loss or unintentional removal.
2. Red bags or red containers can be substituted for the biohazard labels.
3. Containers of blood, blood components, or blood products that are labeled as to their contents and have been released for transfusion, administration, or other clinical use are exempt from biohazard labeling requirements.
4. Individual containers of blood/body fluids that are placed in a labeled container during storage, transport, shipment or disposal are exempt from the biohazard labeling requirements.

5. Contaminated equipment should also have a biohazard symbol ([BBP Appendix 2](#)) affixed to it and should state which portions of the equipment remain contaminated. Contaminated equipment that is to be repaired, returned to vendor, calibrated, loaned to another person, or disposed of must first be properly decontaminated before doing so.

#### G. HBV Vaccination

Hepatitis B vaccine and vaccination series is available free of charge to all employees in high-risk positions. Antibody tests (conducted by an accredited laboratory) and additional doses of vaccine, if indicated, are also available at no cost to high risk employees. Hepatitis B vaccine will be made available after the employee has completed Bloodborne Pathogen training and within 10 days of initial assignment to an at-risk position.

1. Hepatitis B vaccine is made available to all employees who have occupational exposure unless the employee has proof that he/she has previously received the complete hepatitis B vaccination series, or antibody testing has revealed that the employee is immune, or the vaccine is contraindicated for medical reasons. Employees who refuse HBV vaccination must document this in the records filed at the OEHS. ([BBP Appendix 5, Form 27F-OEHS](#))
2. Prescreening for hepatitis B antibody activity is not a prerequisite for receiving the hepatitis B vaccine.
3. If the employee initially refuses the hepatitis B vaccine but decides to receive the vaccine at a later date, the hepatitis B vaccine will be provided at that time free of charge.
4. Hepatitis B antibody testing following immunization (free of charge to high risk employees) to determine an employee's antibody level is recommended by the CDC for employees who have ongoing contact with patients or blood and are at on going risk for injuries with sharp instruments or needlesticks. It is available to these employees one to two months after the completion of the three-dose vaccination series or upon request. At hire, if requested, antibody tests are offered to employees who have had the vaccine series previously. If the employee is a nonresponder to the HBV vaccine after the initial vaccination series, they are then offered a second three-dose vaccine series and retested. Employees who are still non-responders are offered a medical evaluation. All of this is free of charge to high risk employees. Periodic antibody tests thereafter are not currently recommended.
5. Campus-specific information:
  - a. TUHSC and the Uptown campus employees: Each department is responsible for arranging and accepting charges associated with the hepatitis B vaccine for at-risk employees for that work area. This includes accepting charges for the vaccine series, antibody titer testing, and all other costs relating to hepatitis B vaccination as described by the OSHA Bloodborne Pathogens Standard ([29 CFR 1910.1030 BBP Appendix 3](#)). Employees encountering any obstacles in obtaining the hepatitis B vaccine or any associated testing described in this section should immediately contact the Bloodborne Pathogens Coordinator at (504) 988-6608 for assistance.
  - b. TNPRC: The vaccine is available from the Occupational Health Nurse in Building B, #112. Employees should call in advance to set up an appointment at (985) 871-6596.

## H. Post-Exposure Evaluation

Post-exposure evaluation and follow-up for an occupational bloodborne pathogens exposure are free of charge to the employee. All laboratory tests will be conducted by an accredited laboratory at no cost to the employee. All medical evaluations and follow-up procedures will be performed by or under the supervision of a licensed healthcare professional in accordance with the recommendations from the U.S. Public Health Service and Centers for Disease Control ([BBP Appendix 11](#)). In no instance should report completion and medical evaluation be delayed for occupational bloodborne exposures.

### 1. If an occupational exposure should occur:

#### a. TUHSC and Uptown Campus employees:

- 1) CLEANSE: Following a bloodborne exposure incident, the employee is to immediately wash any skin with soap and water or flush mucous membranes with water when such areas have had contact with blood or other potentially infectious materials.
- 2) NOTIFY: The employee who has sustained an exposure incident is to report such incident to his or her supervisor as soon as possible. The supervisor will assist the employee in contacting the bloodborne pathogens coordinator.
- 3) REPORT COMPLETION: Following an exposure incident, a “[First Report of Occupational Injury/Illness Form](#)” and the “[Information Provided to the Evaluating Healthcare Provider Form](#)” should be completed by the employee in consultation with the supervisor. The employee is responsible for bringing these forms to the evaluating healthcare provider when reporting for a bloodborne pathogens injury. Through direct input by the employee, the evaluating healthcare provider is best able to understand exactly what exposure occurred and therefore direct treatment appropriately. These forms are available on the Tulane web at: <http://www.som.tulane.edu/oehs/Bbpforms.html>.
- 4) MEDICAL EVALUATION: The employee should seek medical attention. It must be realized that any bloodborne pathogens exposure incident is an event for which immediate attention must be sought, as the effectiveness of prophylaxis depends on the immediacy of its delivery. All employees are instructed to seek medical attention in the same manner that it would be sought should any occupational injury occur (e.g., emergency room, physician's office, urgent care clinic). However, it is highly recommended that if on rounds at a medical facility while working for Tulane University that you report to the employee health department or the emergency department of the healthcare facility where the injury occurred for initial evaluation. Usually, these departments are equipped to handle bloodborne exposures for injuries sustained at their facility and should have the easiest access to obtaining the source blood lab results which is necessary in evaluating the post-exposure prophylaxis that might be recommended. You should inform the healthcare provider that you are employed by Tulane University. The Tulane’s Workers’ Compensation Specialist can be reached by email [workcomp@tulane.edu](mailto:workcomp@tulane.edu) or phone (504) 988-2896 for further instructions about billing.

#### b. TNPRC: All bloodborne exposures should be reported to the occupational health nurse in B Building #112 (Occupational Health Clinic) so that confidential medical evaluation and/or

treatment can be provided. If the injury is severe the nurse can be reached at extension #6600. The nurse will decide if it is necessary to call 911 in the event of an emergency situation. After hours, the nurse is on call 24/7 and may be reached at (985) 966-6515 on weekends or on 2nd or 3rd shift. The nurse will make appropriate referrals to ensure employee safety and medical care. In the event that the nurse is on vacation or otherwise unavailable, then injured employees must report to Redi-Med (Tel: 985-626-3470) or one of the local emergency rooms for treatment (Lakeview Regional Medical Center's emergency line is # 985-867-4000 and St Tammany Hospital's number is 985-898-4000.) Injured employees must complete a First Report of Injury form in the nurse's office within 24 hours of the incident or as soon as is practical after receiving treatment.

If an occupational exposure should occur:

- 1) Following a bloodborne exposure incident, the employee is to immediately wash any skin with soap and water or flush mucous membranes with water when such areas have had contact with blood or other potentially infectious materials. The employee who has sustained an exposure incident is to report such incident to his or her supervisor as soon as possible and complete a "[First Report of Occupational Injury/Illness Form](#)" ([BBP Appendix 6](#)). All bloodborne exposures should be reported to the occupational health nurse in B Building #112 (Occupational Health Clinic) so that confidential medical evaluation and /or treatment can be provided.
- 2) Employees suffering a potential Herpes B-virus exposure should refer to [BBP Appendix 13](#); TNPRC Policy # 5.3.2 for instructions on care following exposure.
- 3) Employees suffering a potential SIV exposure should refer to [BBP Appendix 14](#); TNPRC Policy # 5.4.1 for instructions on care following exposure.
2. The injured employee shall receive counseling with regards to the occupational injury, risk of bloodborne infections, and available medical treatments. Post-exposure counseling must be consistent with the current U.S. Public Health Service Guidelines ([BBP Appendix 11](#)).
3. Documentation of the route of occupational exposure and circumstances under which the incident occurred should be done using the First Report of Occupational Injury and Illness Form ([BBP Appendix 6](#)) and/or the Information Provided to the Evaluating Healthcare Provider Form ([BBP Appendix 10](#)). If known, the individual source should be identified and documented.
4. All treatment will adhere to the CDC's postexposure monitoring and prophylaxis treatment guidelines for all bloodborne pathogens exposures. Medical evaluation and prophylaxis will be given immediately or as soon as possible after exposure ([BBP Appendix 11](#)).
5. The source individual's blood should be tested as soon as possible after consent is obtained in order to determine HBV, HCV, and HIV infectivity. When the source individual is already known to be infected with HBV, HCV, and/or HIV, testing the source individual's HBV, HCV, or HIV status need not be repeated. Results of the source individual's testing shall be made available to the exposed employee. The exposed employee should be informed of the requirements of disclosure and confidentiality of the identity and infectious status of the source individual.
6. The exposed employee's blood should be collected and tested as soon as possible after consent is obtained. If the employee consents to baseline blood collection, but does not give consent at

that time for HIV serologic testing, the sample should be preserved for at least 90 days. If within 90 days of the occupational exposure the employee chooses to have the baseline sample tested, the testing should be done as soon as possible. Employees have 90 days to decide if they want HIV antibody testing. Reportable diseases will be reported as indicated by state law and U.S. Public Health Service requirements ([Appendix 12 - Reportable Disease List - State of Louisiana](#)).

7. The healthcare professional evaluating an employee after an occupational exposure shall be provided with the following: a copy of OSHA's Bloodborne Pathogens Standard ([BBP Appendix 3](#)) and if applicable, the "Information Provided to the Evaluating Healthcare Provider Form" which includes a description of the exposed employee's duties as they relate to the exposure incident, documentation of route(s) of exposure and circumstances under which exposure occurred, results of source individual's blood testing if available, and all medical records relevant to the appropriate treatment of the employee including vaccination status which are the employee's responsibility to maintain.
8. The employee will be provided with a written copy of the treating healthcare professional's opinion within fifteen (15) days after the medical evaluation. All other findings or diagnoses excluding the following two should remain confidential and not be included in the written report: 1) the written opinion in relation to the hepatitis B vaccine should be limited to and include whether the vaccine is indicated or if the employee has received the vaccine previously. 2) the written opinion in relation to the post-exposure evaluation and follow-up should be limited to and include that the employee was informed of the evaluation results and that the employee was informed of any medical condition resulting from the exposure to blood/body fluids which will require further medical evaluation or treatment.

#### **I. Medical Recordkeeping**

1. Medical recordkeeping shall include: name and social security number of employee; copy of the employee's HBV vaccination status including dates of all HBV vaccines and any medical records relative to employee's ability to receive the vaccine; results of all exams, medical testing, and follow-up procedures; a copy of the healthcare professional's written opinion; a copy of the information provided to the healthcare professional including: documentation that a copy of the OSHA Bloodborne Pathogen Standard was provided to the healthcare professional, a description of the exposed employee's duties as they relate to an exposure incident, documentation of the routes of exposure and circumstances of an exposure incident, identification of source individual and completion of consent for HIV/HBV testing, and results of blood test of source individual; results of collection and testing of employee's blood after consent is obtained; records involved with preserving employee's blood for 90 days if he/she doesn't consent for HIV serologic testing to allow for decision regarding testing; post-exposure prophylaxis; counseling records; and the evaluation of reported illness.
2. Confidential records shall not be disclosed or reported to any person within or outside the workplace (except as required by law) without the employee's express written consent. Records will be maintained for duration of employment plus 30 years. Post-exposure records will be maintained confidentially by the OEHS Bloodborne Pathogens Coordinator. Records will also be kept on HBV vaccination compliance.

## J. Training/Education

1. All employees with the potential for occupational exposures will be provided training/education on methods of preventing nosocomial transmission of bloodborne pathogens at no cost to the employee. The training will be provided during working hours by a competent person knowledgeable in the area of bloodborne pathogens, or through Tulane's computerized training program ([www.som.tulane.edu/oehs/bbp/bbpAnnualTrainIntro.htm](http://www.som.tulane.edu/oehs/bbp/bbpAnnualTrainIntro.htm)). Training material appropriate in content and vocabulary to educational level, literacy, language of employees, and appropriate to assigned duties will be used.
2. Training will be provided as follows:
  - a. at the time of initial employment and assignment to job tasks where occupational exposure may occur
  - b. as soon as possible for all existing employees
  - c. within one year of the employee's previous training and annually thereafter (training shall be provided either on the O E H S website ([www.som.tulane.edu/oehs/bbp/bbpAnnualTrainIntro.htm](http://www.som.tulane.edu/oehs/bbp/bbpAnnualTrainIntro.htm)) or in-service)
  - d. when changes such as modification of tasks or procedures or institution of new tasks or procedures affect the employee's potential for occupational exposures, and as new standards for safe work practices evolve.
3. At minimum, training shall include:
  - a. an explanation of the OSHA Bloodborne Pathogens Standard and contents
  - b. the epidemiology of HIV HCV, and HBV infection within the U.S. with emphasis on healthcare workers
  - c. signs, symptoms, and incubation periods of HIV, HBV, and HCV infections
  - d. modes of transmission of HIV, HBV, and HCV pathogens
  - e. an explanation of the Exposure Control Plan, how to obtain the plan
  - f. methods for recognizing tasks or procedures that may involve exposure to blood/body fluids
  - g. an explanation of the Standard Precautions Policy
  - h. explanation of selection, usage, and limitations of methods to reduce exposure including appropriate engineering controls, work practices, and personal protective equipment
  - i. location, usage, handling, and disposal of personal protective equipment
  - j. discussion of the efficacy, safety, administration, and benefits of the HBV vaccine and its availability to employees without charge

- k. actions to take and persons to contact in an emergency involving blood/body fluids, procedures for exposure incidents, methods of reporting, and provision of medical follow-up
  - l. information on post-exposure evaluation and follow-up
  - m. explanation of the biohazard symbol, color coding, and corresponding requirements
  - n. opportunity for interactive discussion and answers session and/or directions for contacting the BBP Coordinator to answer any questions.
4. Bloodborne Pathogen education/training will be recorded by OEHS. Records for training compliance will be maintained by the BBP Coordinator. Supervisors, department heads, and unit managers are responsible for ensuring that all their at-risk employees receive an annual in-service on bloodborne pathogens. Bloodborne Pathogen education/training records will be maintained for three years from the date on which the training occurred. In addition to authorized management personnel, employee training records shall be provided upon request for examination and copying to the subject employee, to anyone having the subject employee's written consent, and to the director and assistant secretary of the Occupational Safety and Health Administration.

#### **K. HIV and HBV Research Laboratories and Production Facilities**

- 1. In addition to the other requirements of this Exposure Control Plan, research labs and production facilities must meet the following criteria:
  - a. Standard microbiological practices must be followed ([BBP Appendix 15](#)).
  - b. All regulated waste from work areas and from animal rooms must be incinerated or decontaminated by a method such as autoclaving known to be effective in destroying bloodborne pathogens.
  - c. Laboratory doors must be kept closed when work involving HIV or HBV is in progress.
  - d. Contaminated materials that are to be decontaminated at a site away from the work area must be placed in a durable, leak-proof labeled or color-coded container that is closed before being removed from the work area.
  - e. Access to the work area must be limited to authorized persons. Only persons who have been advised of the potential biohazard, who meet any specific entry requirements, and who comply with all entry and exit procedures will be allowed to enter the work areas and animal rooms.
  - f. When potentially infectious materials or infected animals are present in the work area or containment module, a hazard warning sign incorporating the universal biohazard symbol ([BBP Appendix 2](#)) must be posted on all access doors.
  - g. All activities involving potentially infectious materials must be conducted in biological safety cabinets or other physical containment devices within the containment module. No work with potentially infectious materials shall be conducted on the open bench.

- h. Laboratory coats, gowns, smocks, uniforms, or other appropriate protective clothing must be used in the work area and animal rooms. Protective clothing must not be worn outside of the work area and must be decontaminated before being laundered.
  - i. Special care must be taken to avoid skin contact with potentially infectious materials. Gloves must be worn when handling infected animals and when hand contact with infectious materials is unavoidable.
  - j. The supervisor must ensure that vacuum lines are protected with liquid disinfectant traps and HEPA filters or filters of equivalent or superior efficiency and that these are checked routinely and maintained or replaced as necessary.
  - k. Hypodermic needles and syringes shall be used only for parenteral injection and aspiration of fluids from laboratory animals and diaphragm bottles. Only needle-locking syringes or disposable syringe-needle units (i.e., the needle is integral to the syringe) shall be used for the injection or aspiration of potentially infectious materials. Extreme caution must be used when handling needles and syringes. A needle must not be bent, sheared, replaced in the sheath or guard, or removed from the syringe following use. The needle and syringe must be promptly placed in a puncture resistant container and autoclaved or decontaminated before reuse or disposal. Needle boxes shall be available in all laboratory areas.
  - l. All spills must be immediately contained and cleaned by appropriate professional staff or others properly trained and equipped to work with potentially concentrated infectious materials. Contact the Office of Environmental Health & Safety for assistance.
  - m. A spill or accident that results in an exposure incident must be immediately reported to the laboratory director and the Office of Environmental Health & Safety (504) 988-5486.
  - n. A biosafety plan, included as part of the Office of Environmental Health & Safety Policies and Procedures Manual, is reviewed and updated at least annually and advises personnel of potential hazards. Employees should read these instructions on practices and procedures and follow them.
  - o. Certified biological safety cabinets (Class I, II, or III) or other appropriate combinations of personal protection or physical containment devices, such as special protective clothing, respirators, centrifuge safety cups, sealed centrifuge rotors, and containment caging for animals, must be used for all activities with infectious materials that pose a threat of exposure to droplets, splashes, spills, or aerosols.
  - p. Biological safety cabinets must be certified when installed, whenever they are moved, and at least annually by the Office of Environmental Health & Safety.
  - q. Each HIV and HBV research laboratory must contain a facility for Hand washing and an eyewash facility within the work area, and must have available an autoclave for decontamination of regulated waste.
2. HIV and HBV production facilities must meet the following criteria:
- a. The work areas must be separated from areas that are open to unrestricted traffic flow within the building. Passage through two sets of doors must be the basic requirement for entry into work area from access corridors or other contiguous areas. Physical separation of the high

containment work area from access corridors or other areas or activities may also be provided by a double-door clothes-change room (showers may be included), airlock, or other access facility that requires passing through two sets of doors before entering the work area.

- b. The surfaces of doors, walls, floors, and ceilings in the work area must be water resistant so that they can be easily cleaned. Penetrations in these surfaces must be sealed or capable of being sealed to facilitate decontamination.
  - c. Each work area must contain a sink for washing hands and a readily available eyewash facility. The sink must be foot, elbow, or automatically operated and must be located near the exit door of the work area.
  - d. Access doors to the work area or containment module must be self-closing.
  - e. An autoclave for decontamination of regulated waste must be available within or as near as possible to the work area.
  - f. A ducted exhausted-air ventilation system must be provided. This system shall create directional airflow that draws air into the work area through the entry area. The exhaust air must not be recirculated to any other area of the building, must be dispersed away from occupied areas and air intakes. The proper direction of the airflow shall be verified (i.e., into the work area).
3. Initial training requirements for employees in HIV or HBV research laboratories or production facilities, in addition to those outlined previously in this Exposure Control Plan, include:
- a. Employees must demonstrate proficiency in standard microbiological practices and techniques and in the practices and operations specific to the facility before being allowed to work with HIV or HBV.
  - b. Employees must have prior experience in the handling of human pathogens or tissue cultures before working with HIV or HBV.
  - c. Employees who have no prior experience in handling of human pathogens must undergo a training program. Initial work activities shall not include the handling of infectious agents. A progression of work activities shall be assigned as techniques are learned and proficiency is developed. Employees can participate in work activities involving infectious agents only after proficiency has been demonstrated.
  - d. It is the supervisor's responsibility to see that their employees have the initial training, experience and proficiency required in order to work in a HIV or HBV research laboratory or production facility.

Note: Any employees who work with non-human primates (monkeys, monkey tissue, or monkey specimens) may have the potential for contracting B virus. Such employees must review and follow the policies outlined in the current CDC Recommendations for Prevention of and Therapy for Exposure to B Virus. ([BBP Appendix 16](#)).

This plan and all appendices were approved by the Control of Occupational Exposures Committee (COEC) on March 9, 2009.

[● End of Text – Return to Section 40, Page 1 Outline](#)

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BBP APPENDIX ITEMS

SEE, [PAGES 2-3](#) OF THIS SECTION FOR A COMPLETE LIST OF BBP APPENDIX ITEMS. SOME ITEMS ARE REFERENCES TO WEBSITES OR OTHER SOURCES.

ITEMS LOCATED IN THE FOLLOWING PAGES:

BBP APPENDIX ITEMS: 1, 5, 6, 10, 13, 14

## APPENDIX 1

### STANDARD PRECAUTIONS POLICY

#### A. Purpose

Medical History and examination cannot readily identify all persons infected with HIV, HBV, HCV or other bloodborne pathogens; therefore, all employees or students should routinely use appropriate barrier precautions to prevent parenteral, mucous membrane, and non-intact skin exposure when contact with blood or body fluids of any person is anticipated. Healthcare workers and research lab workers are at an increased risk of contracting HIV/HBV/HCV. However, all personnel in the workplace may be exposed to HIV/HBV/HCV and need to be familiar with protective measures. The purpose of this policy is to provide guidelines to decrease the risk of occupational exposure to blood or body fluids. At the present time the precautions for HIV, HBV, HCV and other bloodborne infections are identical and are known as “Standard Precautions”. Standard Precautions are a system of infection control which assumes that every direct contact with body fluids is infectious and requires every employee or student exposed to direct contact with body fluids to be protected as though such body fluids were infected with a bloodborne pathogen. Standard Precautions are adequate protection against bloodborne infections from both humans and animals. The following policies are based on current Centers for Disease Control and Preventions (CDC) recommendations and Occupational Safety and Health Administrations (OSHA) requirements and are subject to change as medical knowledge, advances, and legal issues dictate.

In this document an employee is defined as any personnel, including students of Tulane University, whose work involves direct or potential contact with body fluids, or tissues from living individuals, animals, or corpses.

#### B. Guidelines

##### 1. Handwashing

- a. Hands should be washed before, after, and between contact with persons and after touching intimate objects likely to be contaminated by blood and body fluids.
- b. Hands should be washed after removing gloves.
- c. Hands should be washed as soon as possible if contaminated with blood or body fluids.
- d. Hands should be washed with soap under running water for 15-30 seconds using vigorous mechanical friction.
- e. When handwashing facilities with soap dispensers are not available, an alcohol based antiseptic hand cleaner can be used. When this is used, hands should be washed as soon as feasible.

##### 2. Gloves - the use of gloves will vary according to the procedure involved. The use of disposable gloves is indicated for procedures where blood or body fluids are handled. Gloves will be made available and usage encouraged for all phlebotomy procedures.

- a. Gloves should be worn in the following circumstances:

- 1) If the worker has cuts, abraded skin, chapped hands, dermatitis, or other breaks in skin

- 2) During instrumental examination of oropharynx, gastrointestinal tract, and genitourinary tract
  - 3) During invasive procedures
  - 4) During cleaning of body fluids and decontaminating procedures
  - 5) Performing finger and/or heelsticks on infants and children
  - 6) Persons receiving training in phlebotomy
  - 7) If workers judges that hand contamination with blood may occur
  - 8) During contact with mucous membranes
- b. Gloves should be worn when handling soiled linen
  - c. Gloves should be changed after contact with each person when body fluids are present and between clean and dirty procedures.
  - d. Gloves should be worn for collecting specimens, and working with blood, body fluids, or contaminated tissue cultures.
  - e. Gloves must be of appropriate material, usually intact latex or vinyl, of appropriate quality and size for the procedures performed.
  - f. Gloves should be replaced if they are peeling, cracked, or discolored, or if they have punctures, tears, or other evidence of deterioration.
3. Gowns/Aprons
- a. Fluid-resistant or fluid-proof gowns/aprons should be worn during procedures that are likely to generate splashes of blood or body fluids to skin or clothing.
  - b. Gowns, including surgical gowns, should be made of, or lined with, fluid-proof or fluid-resistant material and should protect all areas of exposed skin. Sleeves of gowns should extend to the wrist.
4. Masks
- a. Masks should be worn during procedures that are likely to generate droplets of blood or body fluids to mucous membranes of the mouth or nose.
  - b. Masks should be worn if there is sustained contact with a person who is coughing extensively
  - c. Masks should be used only once for a single patient contact, unless manufacturer states differently.
  - d. Masks should be removed prior to exiting the patient's room and discarded in the infectious waste.

- e. Special respirator masks must be worn when coming in contact with patients with suspected Tuberculosis. (Refer to Tulane's Tuberculosis Exposure Control Policy.)
5. Protective Eyewear, Goggles, or Face Shields
    - a. Protective eyewear (with brow guard and side shields), goggles, and/or face shields should be worn during procedures that are likely to generate droplets of blood or body fluids to prevent exposure to mucous membranes of the eyes.
    - b. Protective eyewear should be removed prior to leaving the work area and decontaminated as necessary by the individual using the eyewear.
  6. Face Shield- chin-length face shields can be worn in place of protective eyewear and masks during procedures that are likely to generate splashes of blood or body fluids to the face.
  7. Surgical Caps or Hoods and/or Shoe Covers or Boots- surgical caps or hoods and/or shoe covers or boots should be worn in instances when gross contamination can reasonably be anticipated. These should be discarded in appropriately designated receptacles after use.
  8. Needles/Sharps Precautions
    - a. All employees or students should take precautions to prevent injuries caused by needles, scalpels, and other sharp instruments or devices during procedures, or when handling, cleaning or disposing of these items.
    - b. Needles should not be recapped/resheathed, purposely bent or broken by hand, removed from disposable syringes, or otherwise manipulated by hand.
    - c. Resheathing instruments, self-sheathing needles, or forceps can be used to prevent recapping needles by hand.
    - d. Needles and syringes, scalpel blades, and other sharp objects should be placed in a puncture-resistant container having a biohazard label.
    - e. Reusable sharps should be placed in a puncture-resistant container for transport to the reprocessing area.
    - f. Needles and sharp objects should not be thrown in the trash or left in bedding
    - g. Needles should not be used for secondary intravenous lines. Needleless or luerlock closed systems are encouraged.
    - h. Puncture resistant containers with the biohazard label should be replaced when the container is 2/3 full. Needles, sharps, or instruments should never be manipulated once placed in the puncture resistant container.
    - i. Whenever possible, it is encouraged that technologies and practices that reduce or eliminate the use of sharp implements by replacing them with safer technologies and practices (example: catheter securement devices) are implemented. Primary prevention is the most direct method of preventing needlestick injuries. By eliminating the sharp item, the risk is also eliminated.

## 9. Resuscitation Equipment

- a. Resuscitation is the right of all persons who have not asked that resuscitative measures not be taken.
- b. Mouth pieces, resuscitation bags, or other ventilation devices should be readily available to minimize the need for emergency mouth-to-mouth resuscitation.
- c. Gowns/aprons, gloves, protective eyewear, and masks should be readily available on all code/crash carts for emergency resuscitation procedures.

## 10. Handling of Specimens

- a. Gloves should be worn when collecting and processing body fluid specimens.
- b. Specimens should be placed in a well-constructed container with a secure lid. This container should be placed inside an impervious bag having a biohazard label for transport.
- c. Double bagging is not required unless the outside of the first bag is contaminated or torn. A secondary bag or container is needed if there is a potential for puncturing or contaminating a primary container.
- d. Clean gloves should be used for transporting specimens. Hands should be washed after removing gloves.
- e. All specimens transported via the pneumatic tube system should be placed in a sealed plastic bag or secondary closable puncture resistant container. Each pneumatic tube should have a clean plastic transport bag for specimen transport.

## 11. Cleaning Spills of Blood or Body Fluids

- a. Gloves should be worn to clean spills of blood or body fluids.
- b. In any patient care area, the visible blood or body fluid should first be removed with an absorbent disposable material, then the area should be decontaminated with an EPA approved disinfectant and allowed to air dry.
- c. In the laboratory, (spills of cultured or concentrated agents, blood or body fluids) the contaminated areas should be covered with absorbent towels and then flooded with a liquid EPA approved disinfectant. The area should then be cleaned with an absorbent disposable material. Then the area should be disinfected again after cleaning and allowed to air dry.

## 12. Room Assignment- HIV positive patients with undiagnosed respiratory infections are to be placed in a private room if available.

## 13. Pregnant Employees or students

- a. Pregnant employees or students are not known to be at greater risk of contracting HIV, HBV, HCV or other bloodborne infections than employees or students who are not pregnant.

- b. It is the pregnant employee or student's responsibility to be especially familiar with and strictly adhere to standard precautions to minimize the risk of bloodborne disease transmission to themselves and their fetus.

#### 14. Reusable Equipment

- a. Standard sterilization and disinfection procedures currently used for hepatitis B are adequate to sterilize or disinfect instruments, devices, or other items contaminated with body fluids.

#### 15. Linen

- a. Gloves should be worn when handling soiled linen.
- b. Linen soiled with body fluids should be handled as little as possible and with minimum agitation.
- c. Linen should be bagged at the location where it was used.
- d. Linen should not be sorted or rinsed in patient care areas.
- e. Infectious linen should be placed in appropriate bag.
- f. Soiled linen should be placed in appropriate bag.

### **PRECAUTIONS FOR SPECIFIC AREAS/PROCEDURES**

#### **A. Precautions for Invasive Procedures**

1. Invasive procedure is defined as any surgical or other diagnostic or therapeutic procedure involving manual or instrumental contact with or entry into any blood, body fluids, cavity, internal organ, subcutaneous tissue, mucous membrane or percutaneous wound of the human body.
2. Standard Precautions Guidelines should be practiced.
3. All workers who participate in invasive procedures should routinely use appropriate barrier precautions to prevent skin and mucous membrane exposures to blood or body fluids.
4. Gloves and surgical masks should be worn for all invasive procedures.
5. Protective eyewear or face shields should be worn for procedures that commonly result in the generation of droplets, splashing of blood or body fluids, or the generation of bone chips.
6. Gowns or aprons should be worn during invasive procedures that are likely to result in the splashing of blood or other body fluids.
7. Gloves should be changed when heavy external soiling occurs.
8. Gloves should be checked periodically during the procedure for defects, cuts, or holes and changed as needed.
9. Double gloving should be done if the surgeon has cuts, abrasions, or dermatitis.

10. If a glove is torn or a needlestick injury occurs, the glove should be removed and a new glove donned as promptly as the individual's safety permits. The needle or instrument involved should also be removed from the sterile field immediately.
11. Employees or students who perform or assist in vaginal or cesarean deliveries should wear gloves and gowns when handling the placenta or infant until blood or amniotic fluid has been removed from the infant's skin, and should be worn during post-delivery care of the umbilical cord.
12. It is recommended that all sharps and needles utilized should not be passed hand to hand but should be passed via an intermediate tray or basin.
13. Consideration should be given to the use of blunt tip needles when possible.

#### **B. Precautions for Laboratories**

1. Standard Precautions Guidelines should be practiced.
2. All specimens of blood and body fluids should be put in a well-constructed container with a secure lid, then placed in an impervious bag or secondary container to prevent puncture if necessary prior to transport.
3. Gloves should be used for processing all body fluids specimens.
4. Gloves should be changed and hands washed after completion of specimen processing.
5. Masks and protective eyewear (with brow bar and side shield) should be worn if mucous membrane contact with blood or body fluids is likely.
6. Mechanical pipetting devices should be used for manipulating all liquids in the laboratory. Mouth pipetting should not be done.
7. Use of needles and syringes should be limited to situations in which there is no alternative.
8. Laboratory gowns, coats, or aprons should be worn while working with potentially infectious materials and should be removed/discarded appropriately before leaving the laboratory.
9. All procedures and manipulations of potentially infectious material should be performed carefully to minimize the creation of droplets and aerolization of fluids.
10. Equipment that has been contaminated with blood and body fluids should be decontaminated and cleaned before being repaired in the laboratory or transported to the manufacturer. If an area of equipment remains contaminated, a biohazard label should be applied describing the area of and type of contamination.
11. Contaminated equipment should be decontaminated before reprocessing or placed in a plastic bag to be sent for reprocessing.
12. Biological Safety Cabinets (Class I or II) and other primary contaminated devices should be used whenever procedures are conducted that have a high potential for generating droplets such as blending, sonicating, and vigorous mixing.

### **C. Precautions for Postmortem Procedures**

1. Standard Precautions Guidelines should be practiced.
2. All persons performing or assisting in postmortem procedures should wear gloves, masks, protective eyewear, water-proof gowns, and/or aprons, and impervious shoe coverings or boots.
3. Instruments and surfaces contaminated during postmortem procedures should be decontaminated with an EPA approved hospital disinfectant.
4. Postmortem procedures should use techniques to avoid or minimize aerosol distribution of contaminants.
5. Respirator masks should be used for any postmortem procedure done on persons or animals with possible TB.

### **D. Precautions for Dialysis**

1. Standard Precautions Guidelines should be practiced.
2. An individual dialyzer should never be used on more than one patient.
3. Goggles and/or face shields should be worn when placing persons on and taking persons off dialysis.
4. The dialysis machine should be cleaned pre and post dialysis by rinsing with an approved disinfectant, letting it set for 15 minutes and then rinsing until clear.

### **E. Precautions for Dentistry**

1. Standard Precautions Guidelines should be practiced.
2. Rubber dams, high speed evacuation, and proper positioning when appropriate, should be utilized to minimize generation of droplets and splatter.
3. Handpieces should be sterilized after use with each person, or at least flushed, the outside surface cleaned and wiped with an approved disinfectant.
4. Contaminated materials, impressions, and intra-oral devices should be cleaned and disinfected before being handled in the dental laboratory and before they are placed in a persons mouth.

### **F. Environmental Precautions**

1. Linen soiled with blood and body fluids should be placed and transported in yellow plastic bags. If hot water is used, linen should be washed with detergent in water at least 71 C (160 F) for 25 minutes. If low temperature < 70 C (158 F) laundry cycles are used, chemicals suitable for low-temperature washing at proper use concentration should be used.
2. Cleaning and removal of soil should be done routinely. Environmental surfaces such as walls, floors, and other surfaces are not associated with transmission of infections to persons.
3. Cleaning of walls, blinds, and curtains is recommended only if they are visibly soiled.

4. Horizontal surfaces (e.g. bedside tables) in patient care areas should be cleaned on a regular basis, when soiling or spills occur, and when patient is discharged.
5. Disinfectant fogging is not recommended.
6. Trash contaminated with blood and body fluids should be double bagged and transported in red plastic bags.
7. Spills of blood or body fluid should be cleaned according to Standard Precautions Guidelines.
8. Reusable equipment soiled with blood or body fluids should have the gross amount of contamination cleaned, then placed in plastic bag for transport to decontamination.
9. Ambulatory care settings do not require separate examining rooms, waiting areas, or bathrooms for HIV positive persons, unless the presence of other infections require additional isolation.
10. Transportation of HIV positive patients does not require special precautions unless the presence of other infections require additional isolation.

#### **G. Biohazard Symbol**

1. A biohazard symbol should be affixed to containers of regulated waste, refrigerators and freezers containing blood or body fluids, and other containers used to store, transport, or ship blood or body fluids.
2. Biohazard symbol should be fluorescent orange or orange-red or predominantly so, with letters and symbol in contrasting color.
3. Red bags or red containers can be substituted for biohazard labels.
4. Containers of blood, blood components, or blood products that are labeled as to their contents and have been released for transfusion, administration, or other clinical use are exempt from biohazard labeling requirements.
5. Individual containers of blood or body fluids that are placed in a labeled container during storage, transport, shipment, or disposal are exempt from labeling requirements.
6. Regulated waste that has been decontaminated need not be labeled.

## DECLINATION FORM FOR HEPATITIS B VACCINE

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 vaccine 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 am declining the hepatitis B vaccine for the following reason:

I have already completed the hepatitis B vaccine series. I have been informed that I may request a titer test at no charge to me to confirm that I have sufficient antibody to hepatitis B.

I am declining due to medical or other personal reasons. I have been informed that I can choose to receive the hepatitis B vaccination series at no charge at a later time if I continue to work in an at-risk position.

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**-CONFIDENTIAL-**

CLAIM CODE:
OSHA LOG NUMBER:

# Tulane University - First Report of Occupational Injury/Illness

1. Date of Report:		2. Date of Injury: Time: <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM		3. Normal Starting Time on Day PM Accident: <input type="checkbox"/> AM <input checked="" type="checkbox"/>		4. Date Employee Return to Work: PM	
5. If Fatal injury, Give Date of Death:		6. Date Employer Knew of Injury:		7. Date Disability Began:		8. Last Full Day Paid-Date:	
9. Print Employee:(First/Middle/Last)				10. Social Security Number		11. <input type="checkbox"/> Male <input type="checkbox"/> Female	
12. Address-Include Parish and Zip Code:				13. Employee Home Phone Number:		14. Race: <input type="checkbox"/> White <input type="checkbox"/> Black <input type="checkbox"/> Amer. Indian <input type="checkbox"/> Asian <input type="checkbox"/> Other	
15. <input type="checkbox"/> Married <input checked="" type="checkbox"/> Single <input type="checkbox"/> Separated <input type="checkbox"/> Widowed		16. Number of Children Under 18:		17. Date of Hire:			
18. Employees Birth Date:		19. Occupation:		20. Department Regularly Employed		21. Present age:	
22. <b>Exact Location:</b> (Building, floor, room number, etc. If off premises: street, address, city & state)							
23. What Was The Employee Doing When injured? (Be specific. If using tools or equipment or handling material-name them and tell what he was doing with them).							
24. How Did Injury Occur? (Describe fully the events which resulted in injury or disease. Tell what happened and how it happened. Name any objects or substances involved and tell how they were involved. Give full details on all factors which led or contributed to injury or disease).							
Did Injury or Illness Occur Because of: ➡				25. Mechanical Defect <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Describe Above)		26. Unsafe Act Defect: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
27. Nature and Location of injury or Disease (Describe fully, include parts of body affected):							
28. Attending Physician and Address (If Hospital involved indicate)							
29. Employer: TULANE UNIVERSITY <input type="checkbox"/> UPTOWN <input type="checkbox"/> TUHSC <input checked="" type="checkbox"/> TRPRC				30. Person Completing This Report:			
31. Employer's Address-Include Parish and Zip Code:				32. Employer's Telephone Number:			
33. Employer's Mailing Address-If Different Than Above:				34. Nature of Business-Type of Mfg., Trade, Construction, Service, etc.: <b>EDUCATION AND HEALTH CARE SERVICES</b>			
<b>INSTRUCTIONS:</b> ■ IF SERIOUS INJURY, ILLNESS OR DEATH OCCURS, CONTACT TULANE UNIVERSITY OFFICE OF ENVIRONMENTAL HEALTH & SAFETY AT 504-988-5486. ■ IT IS IMPORTANT THAT ALL INFORMATION IS PROVIDED ON THIS FORM ON <b>BOTH SIDES</b> . BOTH SIDES OF FORM MUST BE COMPLETED! ■ SEND IMMEDIATELY TO OEHS - WORKER'S COMPENSATION, TULANE UNIVERSITY. STATE LAW REQUIRES IMMEDIATE REPORTING.							
PRINT DIRECTOR/SUPERVISOR NAME:							
DIRECTOR OR SUPERVISOR'S SIGNATURE:						PHONE NUMBER:	

### DISTRIBUTION OF FORM:

Original to Tulane University, Env Health & Safety (Workers' Comp Section) 1430 Tulane Ave, Bx TW16, New Orleans, LA 70112-2699, Worker's Comp. fax No. 504 988-2196 / Direct No. 504 988-2869;  Employee's Supervisor;  Employee;  Health Care Provider (HCP).

**-Continued on reverse side- ➡**  
**-CONFIDENTIAL-**

18F-OEHS (REV. 7/04) INJURY/ILLNESS

(Note: Complete the following by  checking the appropriate blocks or filling in space provided below.)

**EVENT CODE**

- Falls, Slips, Trips (Off, On, Over)
- 101  Off chair, furniture
  - 102  Off dock, opening, excavation
  - 103  Off ladder, scaffold
  - 104  Off machinery, equipment
  - 105  Off vehicle
  - 106  Off high place
  - 107  On stairs, steps-indoors
  - 108  On other flat surfaces-indoors
  - 109  On stairs, steps-outdoors
  - 110  On paved surfaces-outdoors
  - 111  On loose ground cover-outdoors
  - 112  On Flat surface-outdoors
- Struck, Caught (by, against, between)
- 201  By airborne dust particles
  - 202  By another person, object being held
  - 203  By chips/particles from use of powered hand tools, machinery or equipment
  - 204  By chips/particles from use of non-powered hand tools
  - 205  By object - blown off pressurized system
  - 206  By object - broken off, vibrated loose, mobilized
  - 207  By object - collapse, cave-in
  - 208  By object - dropped, released by self during handling
  - 209  By object - from explosion, over-pressure
  - 210  By object - dropped, released or thrown by another person
  - 211  By - other \_\_\_\_\_
  - 212  By/against handtool, non-powered
  - 213  By/against hand tool, powered
  - 214  By/against moving equipment/ machinery
  - 215  Against stationary, sharp object
  - 216  Against - other \_\_\_\_\_
  - 217  Caught in moving machinery, equipment
  - 218  Caught, pinched between objects
  - 219  Needle - self inflicted
  - 220  Needle - waste handling
  - 221  Other \_\_\_\_\_
- Contact with Material Condition (touching, breathing, swallowing, absorbing)
- 301  Chemicals - corrosive, irritating substances in, around or from process equipment
  - 302  Chemicals - corrosive, irritating substances while handling or transferring bulk quantity
  - 303  Chemicals - corrosive, irritating substances in small laboratory quantity
  - 304  Commercial cleaning materials
  - 305  Chemicals - other \_\_\_\_\_
  - 306  Electricity, power hand tools
  - 307  Electricity - other \_\_\_\_\_
  - 308  Exposure to natural elements
  - 309  Fire flame, intense heat
  - 310  Hot, cold surface
  - 311  Unpressurized hot liquid hot material
  - 312  Pressurized hot liquid/gas
  - 313  Pressurized cold liquid/gas
  - 314  Noise
  - 315  Radiation
  - 316  Smoke, gas
  - 317  Welding flash
  - 318  Other material or condition
  - 319  Biological agent
  - 320  Other \_\_\_\_\_
- Overexertion, Strain (Load, No Load)
- 401  Load-carrying, holding, twisting, reaching
  - 402  Load-lifting
  - 403  Load-pulling, pushing, turning
  - 404  Load-other \_\_\_\_\_
  - 405  No load - bending
  - 406  No load - reaching, twisting
  - 407  No load - other \_\_\_\_\_
  - 408  Load - patient

Miscellaneous

- 501  Animal, insects, plants
  - 502  Public transportation
  - 503  Sports activity
  - 504  Vehicle passenger, driver
  - 505  Other \_\_\_\_\_
- NATURE OF INJURY CODE**
- Injury
- 101  Amputation
  - 102  Bite, sting
  - 103  Bruise, contusion
  - 104  Burn - hot, cold, chemical, scald
  - 105  Concussion, unconscious
  - 106  Cut, laceration
  - 107  Exhaustion, heat stroke
  - 108  Electric shock
  - 109  Irritation, other
  - 110  Exposure
  - 111  Foreign body, sliver, dust etc.
  - 112  Fracture, crush, dislocated
  - 113  Internal injury, hernia, heart
  - 114  Loss of senses, faculties
  - 115  Puncture
  - 116  Scrape, scratch, abrasion
  - 117  Sprain, strain, torn
  - 118  Suffocation, drowning
  - 119  Dermatitis (skin rash)
  - 120  Other \_\_\_\_\_
- Illness
- 201  Skin disease, disorder
  - 202  Lung problem, dust related
  - 203  Lung problem, toxic agent related
  - 204  Poisoning
  - 205  Disorders due to physical agent (other than toxic agents)
  - 206  Disorders associated with repeated trauma
  - 207  Other \_\_\_\_\_
- PART OF BODY CODE**
- HEAD/NECK
- 301  Scalp
  - 302  Skull
  - 303  Ears (R/L/Both)
  - 304  Eyes (R/L/Both)
  - 305  Face (R/L/Both)
  - 306  Nose
  - 307  Mouth/Teeth
  - 308  Neck
  - 309  Whole Head
  - 310  Other \_\_\_\_\_
- Arm/Shoulder
- 401  Shoulder (R/L/Both)
  - 402  Upper Arm (R/L/Both)
  - 403  Elbow (R/L/Both)
  - 404  Forearm (R/L/Both)
  - 405  Wrist (R/L/Both)
  - 406  Hand (R/L/Both)
  - 407  Fingers (R/L/Both)
  - 408  Whole Arm (R/L/Both)
  - 409  Other \_\_\_\_\_
- Torso
- 501  Chest/Ribs
  - 502  Back - Muscles
  - 503  Back - Skeletal/Nervous
  - 504  Abdomen
  - 505  Groin
  - 506  Hip (R/L/Both)
  - 507  Buttocks
  - 508  Whole Torso
  - 509  Other \_\_\_\_\_
- Leg
- 601  Thigh (R/L/Both)
  - 602  Knee (R/L/Both)
  - 603  Shin, Calf (R/L/Both)
  - 604  Ankle (R/L/Both)
  - 605  Foot (R/L/Both)
  - 606  Toe
  - 607  Whole Leg (R/L/Both)
  - 608  Other \_\_\_\_\_

Faculty/System

- 701  Hearing
- 702  Vision
- 703  Smell
- 704  Taste
- 705  Touch
- 706  Respiratory
- 707  Circulatory
- 708  Digestive
- 709  Nervous
- 710  Other \_\_\_\_\_

**TASK ASSIGNMENT CODE**

- 01  Working regular assigned task.
- 02  Working at other than regular task.
- 03  Other: \_\_\_\_\_

**CONTRIBUTING ENVIRONMENTAL FACTOR CODE**

- 01  Sound level
- 02  Weather condition
- 03  Illumination
- 04  Working surface/facility layout condition
- 05  Flammable liquid/solid exposure
- 06  Chemical action/reaction exposure
- 07  Materials handling equipment/ method
- 08  Gas/vapor/mist/fume/smoke/dust condition
- 09  Overhead moving/falling object action
- 10  Flying object action
- 11  Temperature above or below tolerance level
- 12  Radiation condition
- 13  Pinch point action
- 14  Catch point/puncture action
- 15  Shear point action
- 16  Squeeze point action
- 17  Overpressure/underpressure condition
- 18  Poor housekeeping
- 19  Other \_\_\_\_\_

**CONTRIBUTING HUMAN FACTOR CODE**

- 01  Misjudgement of hazardous situation
- 02  No personal protective equipment used
- 03  No special protective clothing/ appropriate attire
- 04  Malfunction of procedure for securing operation or warning of hazardous situation
- 05  Distracting actions
- 06  Equipment in use not appropriate for operation or process
- 07  Malfunction of neuro-muscular system
- 08  Malfunction of perception system with respect to task environment
- 09  Safety devices removed or inoperative
- 10  Operational position not appropriate for task
- 11  Procedure for handling materials not appropriate for task
- 12  Defective equipment in use
- 13  Malfunction of procedure for lock-out or tag-out
- 14  Procedure to complete task not appropriate
- 15  Other \_\_\_\_\_

COMMENTS OR RECOMMENDATIONS TO HELP PREVENT FUTURE OCCURRENCES OF SIMILAR PROBLEMS:

\_\_\_\_\_

Note: If more space is needed use an extra sheet of paper as an attachment.

**APPENDIX 10**

**Information to be Provided to the Evaluating Healthcare Practitioner Form**  
(Routes and Circumstances of Exposure Incident)

***Please Print***

Employee's Name \_\_\_\_\_ Date \_\_\_\_\_

Date of Birth \_\_\_\_\_ SS# \_\_\_\_\_

Telephone (Business) \_\_\_\_\_ (Home) \_\_\_\_\_

Job Title \_\_\_\_\_

Date of Exposure \_\_\_\_\_ Time of Exposure \_\_\_\_\_ AM \_\_\_\_\_ PM \_\_\_\_\_

Hepatitis B Vaccination Status \_\_\_\_\_

Location of Incident \_\_\_\_\_

Describe what job duties you were performing when the exposure incident occurred \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Describe the circumstances under which the exposure incident occurred (what happened that resulted in the incident) \_\_\_\_\_

\_\_\_\_\_

What body fluid(s) were you exposed to? \_\_\_\_\_

\_\_\_\_\_

What was the route of exposure (e.g., mucosal contact, contact with nonintact skin, percutaneous)?

\_\_\_\_\_

Describe any personal protective equipment in use at time of exposure incident \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Did PPE fail? \_\_\_\_\_ If yes, how? \_\_\_\_\_

\_\_\_\_\_

Identification of source individual(s) (names) \_\_\_\_\_

\_\_\_\_\_

Other pertinent information \_\_\_\_\_

**Information to be Provided to the Evaluating Healthcare Practitioner Form**  
(Routes and Circumstances of Exposure Incident)

**WRITTEN OPINION**

To the Evaluating Physician:

After your evaluation of this Tulane University employee, please assure that the following information has been furnished to the employee and provide your initials beside the following statements:

- (A) \_\_\_\_\_ The employee has been informed of the results of this evaluation.
- (B) \_\_\_\_\_ The employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation and treatment.

No other findings should be included on this report.

Please give one copy of this completed form to the patient (Tulane employee) and send an additional copy by mail or fax to:

Tulane University OEHS  
Bloodborne Pathogens Coordinator  
1430 Tulane Ave. TW-16  
New Orleans, LA 70112

Bloodborne Pathogens secure fax line: (504) 988-2297

Thank you for your evaluation of this employee.

\_\_\_\_\_  
Physician's signature

\_\_\_\_\_  
Physician's name (printed)

\_\_\_\_\_  
Date

**Information to be Provided to the Evaluating Healthcare Practitioner Form**  
(Routes and Circumstances of Exposure Incident)

**Notice to the Evaluating Healthcare Provider:**

Post-exposure evaluation and follow-up are to be provided to the employee consistent with the requirements of 29 CFR 1910.1030 (OSHA's Bloodborne Pathogens Standard is available in full online at: [http://osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=10051](http://osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10051)).

Therefore, upon presenting for evaluation, the Tulane employee should provide you with the following:

- Hepatitis B vaccination information history/record
- A completed "Information Provided to the Healthcare Provider" form

Available to you is the following support:

- National HIV/AIDS Clinicians' Consultation Center, University of California - San Francisco.

Exposure to blood-borne pathogens can present serious risks to health care providers. Prompt post-exposure treatment for HIV and hepatitis B virus can be effective, but because each exposure case is unique, determining who should receive prophylaxis and which drugs are most appropriate is not always easy.

The National Clinicians' Post-Exposure Free Prophylaxis Hotline (PEP line 1-888-448-4911) offers treating clinicians up-to-the-minute advice on managing occupational exposures (i. e., needlesticks, splashes, etc.) to HIV, hepatitis and other blood-borne pathogens. PEP line clinicians will respond to your call 24 hours a day, 7 days a week

- Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HIV and Recommendations for Postexposure Prophylaxis (available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5409a1.htm>)
- Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Postexposure Prophylaxis (available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5011a1.htm>)

⇒ A decision to start antiretroviral therapy should be made within 2-4 hours post-exposure. Tulane University Infectious Disease Physicians are available by pager: (504) 663-9557.

## APPENDIX 13

### 5.3.2 Procedures for Employees Following Possible B Virus Exposure

Tulane National Primate Research Center  
Standard Operating Procedures (SOPs)

Author: Jacqueline Fearon RN, MPHTM  
Date: 11/30/2003

#### A. Purpose/Scope

This SOP describes the procedure established to ensure proper reporting of injury and management of exposed personnel that have potentially been exposed to B virus (Cercopithecine Herpesvirus 1).

#### B. Definitions

B virus (Cercopithecine Herpesvirus 1) is an alphaherpesvirus endemic to members of the genus *Macaca*.

#### C. References

Cohen, JL et al. Recommendations for Prevention and Therapy for Exposure to B Virus. The B Virus Working Group. Clin. Infectious Disease. 2002. 2:35, 1191-1203.

National Research Council publication: Occupational Health and Safety in the Care and Use of Research Animals. 1997.

#### D. Background

Macaques who harbor B virus may present with a vesicular lesion on a mucosal surface. However, macaques often shed virus in mucosal secretions with no evidence of a herpetic lesion. B virus can cause fatal encephalitis in non-treated infected humans.

#### E. Procedures

1. Individuals who suffer a monkey bite, monkey scratch, splash to mucosal surface, or dirty cage injury must report such injury to their supervisor after following the 15 minute scrub procedure (using Betadine, which is a detergent based product) using the kits provided in each work area. In the case of exposure to the eyes or other mucosal surface, 15 minute irrigation with sterile saline or water is recommended.
2. The supervisor must immediately notify the veterinarian on call. The veterinarian will examine the monkey as soon as possible after the animal is identified. Assessment of the animal is in accordance with SOP #3.48.1 "Animal Sampling after an Exposure".
3. The employee should then immediately report to the Occupational Health Clinic area to be assessed by the Occupational Health Nurse. The nurse will administer first aid and assess the injury. The nurse will complete the "First Report of Injury" form and fax it to the Workers'

Compensation Specialist at (504) 988-2196. An original copy will be kept on file in the clinic. The RN will log information concerning the injury into the Occupational Health Database.

4. The occupational health nurse will have the employee sign a “consent to draw blood” form and draw a serum sample to be taken to Gail Plauche in the Comparative Pathology laboratory. This sample will be shipped to the B virus laboratory in Atlanta. The nurse will complete the appropriate paperwork requisition and send this to the B virus Laboratory with the sample.
5. The nurse will consult the TNPRC infectious diseases medical specialist Dr. Susan McLellan (or the on-call Infectious Diseases MD) to report the injury and receive further instruction as necessary. The usual recommended prescription is for Valtrex- 1 tablet every 8 hours for 14 days. Medications should be started within 4 hours of the injury.
6. RN will contact Braswell’s Pharmacy at (985) 892-0818 to authorize filling of prescriptions and payment by Workers’ Compensation.
7. For injuries after business hours: Supervisor will notify veterinarian on call and contact Occupational Health RN at (985) 966-6515. The Occupational Health RN will contact Dr. Susan McLellan (or the on-call Infectious Diseases MD) to coordinate the employee’s care and follow-up.
8. Follow-up procedures: Employees should report to the TNPRC Occupational Health Clinic 14-17 days after the initial exposure for follow-up blood work. It is the employee’s responsibility to ensure this follow-up testing is completed.
9. In the event the employee becomes symptomatic, he/she should report to TNPRC Occupational Health Clinic or his/her Primary Care Physician immediately.
10. Processing of serum samples: If samples are drawn after 3pm, then they should be frozen and stored until they can be shipped the next day on dry ice. Samples should not be shipped on Fridays or close to holidays.
11. Documentation: The Occupational Health Nurse should maintain a “Bite and Scratch Log” in the Occupational Health Clinic for ongoing risk assessment and educational/preventative purposes. Each injury/exposure with treatment assigned should be clearly documented in the employee medical record in the clinic area.
12. Prevention: All employees must be given information about B virus and review appropriate training materials upon hire.

SOP approved by TNPRC IACUC on December 2, 2003

## APPENDIX 14

### 5.4.1 Simian Immunodeficiency Virus (SIV) Exposure

Tulane National Primate Research Center (TNPRC)  
Standard Operating Procedure (SOP)

Author: Jacqueline Fearon RN, MPHTM

Date: 12/5/2003

#### A. Purpose/Scope

To describe the established institutional procedures to ensure appropriate healthcare management of employees occupationally exposed to SIV.

#### B. Definitions

Simian Immunodeficiency Virus (SIV) belongs to the family Retroviridae (Lentivirinae) and is closely related to human immunodeficiency virus types 1 and 2 (HIV-1 and HIV-2). Few reports of infections in humans have been documented.

#### C. References

Larimer Working Group, et al. Perspectives in Disease Prevention and Health Promotion. "Guidelines to Prevent Simian Immunodeficiency Virus Infection in Laboratory Workers". MMWR November 1988; 37 (45); 693-704.

National research Council publication: "Occupational Health and Safety in the Care and Use of Nonhuman Primates". The National Academies Press. 2003.

#### D. Background

SIV is an important animal model of AIDS. In rhesus monkeys and other susceptible nonhuman primates (e.g. pig-tailed macaques), SIV infection leads to a chronic wasting disease syndrome, depletion of T4 lymphocytes, and lymphadenopathy. The clinical course is complicated by various opportunistic infections. SIV can be isolated from any variety of tissues and body fluids including blood, plasma, cerebrospinal fluid, secretions, etc. The three humans reportedly infected through occupational injuries have not experienced similar clinical syndromes.

#### E. Procedures

1. In the laboratory area, all cultures, specimens, and materials coming into contact with SIV antibody-positive nonhuman primates should be considered to be contaminated with SIV. All appropriate Biosafety Level (BSL-2) standards must be implemented. All employees must have documented training in the care and handling of SIV-infected monkeys. Protective clothing must be worn and universal (standard) precautions must be implemented.

2. Individuals suffering an exposure to potentially contaminated materials or bitten/scratched by an infected monkey should immediately scrub with Betadine for 15 minutes. He/she should then notify the supervisor and report to the TNPRC Occupational Health Clinic for evaluation (extension 6600 or (985) 966-6515).
3. The supervisor immediately notifies the veterinarian on call. The veterinarian will examine the monkey and access the animal records database or the principal investigator to determine the SIV status. The status will be communicated to the Occupational Health Nurse at ext. 6600 or (985) 966-6515.
4. The Occupational Health RN will administer first aid and assess the injury. The nurse will assist in completing the "First Report of Injury" form and fax it to the Workers' Compensation Specialist at (504) 988-2196. The original copy will be kept on file in the TNPRC Occupational Health Clinic. If necessary, the RN will determine if the employee who is injured should go to the Redi-Med Clinic or directly to the nearest hospital Emergency Department.
5. Upon employment, all employees have a baseline serum sample frozen and stored in the Clinic. The RN must obtain consent and draw another serum sample with each exposure and send the blood to the Centers for Disease Control (CDC) for processing to determine HIV/SIV exposure. This procedure should be repeated in 6 weeks, 3 months, and six months after exposure. It is the employee's responsibility to ensure that this is done, but the TNPRC Occupational Health Clinic will also follow-up to ensure testing is complete.
6. The RN will call the Tulane Medical Center Infectious Diseases MD (beeper (504) 663-9557) for instructions on prophylaxis. Two-drug treatment is recommended: Viread 300 mg daily combined with Combivir (3TC/AZT) 1 tablet twice a day. Treatment should be maintained for 4 weeks duration.
7. The RN will call Braswell's Pharmacy at (985) 892-0818 to authorize this medication to be charged to Workers' Compensation. RN will also call in this prescription to the pharmacy for the physician. It is important that the prescription be filled and begun within 4 hours.
8. Should the injury occur after business hours then the RN will be notified at (985) 966-1815. The RN will contact the Tulane Infectious Diseases MD on call and call in a prescription for prophylaxis to the local Walgreens 24 hour pharmacy at (985) 893-7476. The RN will triage the employee's injuries via telephone and refer for treatment as needed. Should the employee be unable to access the medication after hours, the RN will provide the first dose of medication from the Occupational Health Clinic supply as ordered by the physician on call.
9. Secondary Contact Protocol:
  - a. After hours: If the RN is out of town/on vacation, the on call veterinarian (or other designated person) is responsible for contacting the on call Infectious Diseases MD at Tulane Medical Center to have this physician call in a prescription for the patient.
10. Individuals suffering an exposure to potentially contaminated materials or bitten/scratched by an infected monkey should immediately scrub with Betadine for 15 minutes. He/she should then notify the supervisor and report to the TNPRC Occupational Health Clinic for evaluation (extension 6600 or (985) 966-6515).

- a. Follow-up: Employees should report any signs and symptoms of HIV/SIV infection (flu-like syndrome) to the RN immediately. Employee should report to RN for serology testing after 6 weeks, 3 months, and 6 months. If positive, patient will be referred to Tulane Infectious Diseases Clinic for further treatment and follow-up.

Approved by TNPRC IACUC on January 8, 2004