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**UNIVERSITY OF SOUTH CAROLINA
LANCASTER
BLOODBORNE PATHOGENS
EXPOSURE CONTROL PLAN**

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A. Introduction

This plan has been developed in accordance with the Occupational Safety and Health Administration (OSHA) Bloodborne Pathogen Standard (BBP), 29 CFR 1910.1030. The plan is applicable for all departments but each department must develop protocols that are specific to their work area for Appendices A-E. The Exposure Control Plan should be reviewed and updated at least annually, and whenever necessary to reflect new or modified tasks, and / or new or revised employee positions which affect occupational exposure.

B. Purpose

The purpose of this exposure control plan is to:

- Eliminate or minimize employee occupational exposure to blood and other potentially infectious materials.
- Comply with the OSHA Bloodborne Pathogens Standard , 29 CFR 1910.1030

C. Exposure Determination

Hepatitis B is an inflammation of the liver. The virus is transmitted by exposure to infectious body fluids, usually blood or blood components. Bloodborne pathogens may be transmitted in the following ways during work activities:

- * injuries from sharps
- * skin or eye contact
- * scratches or cuts
- * bites or wounds

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.

Although universal precautions can provide some protection from exposure to Hepatitis B (HBV), Hepatitis C (HCV), and AIDS (HIV) pre-exposure risks are defined based on the probability of exposure to potentially infectious materials. The exposure risks have been categorized into three job classifications:

1. Job Classification I - exposures where employees may be routinely exposed to bloodborne pathogens or other potentially infectious materials. The normal work

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routine involves procedures or job related tasks that have an inherent potential for risk. Example: Designated first aid providers who render assistance on a regular basis in the course of their work are included in this category.

Job Classification I	Tasks/Procedures
Athletic trainers	Provide first aid, exposure to blood and body fluids
First Responders	Provide first aid, exposure to blood and body fluids
Infectious Waste Handlers	Handles and transports infectious waste
Clinical Laboratory Personnel	Works with sharps, exposure to blood and body fluids
Custodial Staff in Clinical Setting	Handles contaminated laundry, empties trash, cleans contaminated areas
Nursing Staff in Clinical Setting	Works with sharps, exposure to blood and body fluids
Physicians in Clinical Setting	Works with sharps, exposure to blood and body fluids
Exercise physicist	May work with sharps if drawing blood gases
Forensic Anthropologist Assistant	Exposure to sharps, blood, and body fluids; handling of deceased persons
Lifeguard	Provides first-aid and CPR
Radiology staff in clinical setting	Exposure to blood and body fluids: Non-invasive procedures performed.

2. Job Classification II - exposures where employees are not usually exposed to bloodborne pathogens or other potentially infectious materials; but, they may be exposed under certain conditions. The normal work routine does not involve procedures or job related tasks that have an inherent potential for risk. Example: Designated first aid provider whose primary job assignment is not rendering of first aid are included in this category.

Job Classification II	Tasks/Procedures
Staff of developmentally disabled	Working with clients may be combative, human bite exposure
International traveler	Travel may be required for work; Hepatitis B exposure
Laundry/Locker room personnel	Handle gym clothes, towels may be exposed to blood or body fluids.
Law Enforcement officers	May be designated to provide first aid as primary job assignment.
Maintenance	Have been trained, and may be designed to provide CPR and First Aid

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Custodial Staff	May be designated to clean up blood and body fluids.
Researchers in laboratory setting	May be expose to blood or blood products, infectious waste, virus.

3. Job Classification III -exposures where employees should not ever be exposed to bloodborne pathogens or other potentially infectious materials.

* *The Hepatitis B Vaccine will be offered to all employees in Category I.*

* *The vaccine will be offered to some employees in Category II.*

D. Compliance Methods

1. Universal precautions will be observed at the University of South Carolina in order to prevent contact with blood or other potentially infectious materials. All blood or other potentially infectious material will be considered infectious regardless of the perceived status of the source individual.

2. Hand washing facilities shall be made available to the employees who incur exposure to blood or other potentially infectious materials. OSHA requires that these facilities be readily accessible after incurring exposure. *(If hand washing facilities are not feasible, USC will provide either an antiseptic cleanser in conjunction with clean cloth/paper towels or antiseptic towelettes. If these alternatives are used then the hands are to be washed with soap and running water as soon as feasible.)*

3. Work practice controls:

In work areas where there is a reasonable likelihood of exposure to blood or other potentially infectious materials, employees are not to eat, drink, apply cosmetics or lip balm, smoke, or handle contact lenses. Food and beverages aren't to be kept in refrigerators, freezers, shelves, cabinets, or on counter tops or bench tops where blood or other potentially infectious materials are present.

4. Engineering Controls

Contaminated needles and other contaminated sharps shall not be bent, recapped or removed unless it can be demonstrated that not alternative is feasible or that such action is required by a specific procedure. Such bending, recapping or needle removal

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must then be accomplished through the use of a mechanical device or a one-handed technique. Shearing or breaking of contaminated needles is prohibited.

Immediately after use, contaminated reusable sharps shall be placed in appropriate containers until properly reprocessed. These containers shall be puncture resistant, labeled or color-coded, and leak proof on the sides and bottom.

5. Implementation of safer medical devices

The Needle-stick Safety and Prevention Act, was signed into law on November 6, 2000, in response to the advances made in technological developments that increase employee protection.

Safer medical devices replace sharps with non-needle devices or incorporate safety features designed to reduce the likelihood of injury.

Safer medical devices that are appropriate, commercially available, and effective must be implemented. An effective safer medical device is one that, based on reasonable judgment, will decrease the risk of an exposure incident involving a contaminated sharp.

Since employees are required to utilize the devices, they shall have input in the identification, selection, and evaluation of effective work practice and engineering controls. After initial use of the devices by employees, there needs to be a continued and documented evaluation of the devices. It may be necessary to replace the device originally selected with a more suitable device. An effective safer device may not be available in the marketplace for every situation.

Engineering controls shall be examined and maintained or replaced on a regular schedule to ensure their effectiveness.

6. Safety Procedures (Appendix B)

Mouth pipetting/suctioning of blood or other potentially infectious materials is prohibited.

All procedures will be conducted in a manner that will minimize splashing, spraying, splattering, and generation of droplets of blood or other potentially infectious materials.

Specimens of blood or other potentially infectious materials will be placed in a container that prevents leakage during the collection, handling, processing, storage, and transport of the specimens. The container used for this purpose will be labeled or color-coded.

Any specimens that could puncture a primary container will be placed within a secondary container that is puncture resistant. If outside contamination of the primary

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container occurs, the primary container shall be placed within a secondary container that prevents leakage during the handling, processing, storage, transport, or shipping of the specimen.

7. Personal Protective Equipment (Appendix C)

Each department is responsible for ensuring that the following provisions are met. All personal protective equipment used at this facility will be provided without cost to employees. Personal protective equipment will be 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 employees clothing, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time the protective equipment will be used.

a. PPE Use

Each department shall ensure that the employee uses appropriate PPE unless the supervisor shows that employee temporarily and briefly declined to use PPE when under rare and extraordinary circumstances, it was the employees professional judgment that in the specific instance its use would have prevented the delivery of healthcare or posed an increased hazard to the safety of the worker or co-worker. When the employee makes this judgment, the circumstances shall be investigated and documented in order to determine whether changes can be instituted to prevent such occurrences in the future.

b. PPE Accessibility

Each department shall ensure that appropriate PPE in the appropriate sizes is readily accessible at the worksite and is issued without to employees. Hypoallergenic gloves, glove liners, powder free gloves, or other similar alternatives shall be readily accessible to those employees who are allergic to the gloves normally provided.

c. PPE Cleaning, Laundering and Disposal

All personal protective equipment will be cleaned, laundered, repaired, replaced, or disposed of by the employer at no cost to the employee.

All garments that are penetrated by blood shall be removed immediately or as soon as feasible. All PPE will be removed prior to leaving the work area. When PPE is removed, it shall be placed in an appropriately designated area or container for storage, washing, decontamination or disposal.

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d. Gloves

Gloves shall be worn where it is reasonably anticipated that employees will have hand contact with blood, other potentially infectious materials, non-intact skin, and mucous membranes; when performing vascular access procedures and when handling or touching contaminated items or surfaces.

Disposable gloves used at this facility are not to be washed or decontaminated for re-use and are to be replaced as soon as practical when they become contaminated or as soon as feasible if they are torn, punctured, or when their ability to function as a barrier is compromised. Utility gloves may be decontaminated for re-use provided that the integrity of the glove is not compromised. Utility gloves will be discarded if they are cracked, peeling, torn, punctured, or exhibit other signs of deterioration or when their ability to function as a barrier is compromised.

e. Eye and Face Protection

Masks in combination with eye protection devices, such as goggles or glasses with solid side shield, or chin length face shields, are required to be worn whenever splashes, spray, splatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, or mouth contamination can reasonably be anticipated.

8. Housekeeping Procedures (Appendix D)

Each department shall ensure the worksite is maintained in a clean and sanitary condition. An appropriate written schedule for cleaning and method of decontamination is based upon the location within the facility, type or surface to be cleaned, type of soil present, and tasks or procedures being performed in the area.

All contaminated work surfaces will be decontaminated after completion of procedures and immediately or as soon as feasible after any spill of blood or other potentially infectious materials, as well as at the end of the work shift if the surface may have become contaminated since the last cleaning.

All bins, pails, cans, and similar receptacles shall be inspected and decontaminated on a regularly scheduled basis.

Any broken contaminated glassware will not be picked up directly with the hands. Dustpans and hand brooms or forceps/ tongs are available for use.

Reusable sharps that are contaminated with blood or other potentially infectious materials shall not be stored or processed in a manner that requires employees to reach by hand into the containers where these sharps have been placed.

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9. Regulated Waste Disposal

Disposal of all regulated waste shall be in accordance with applicable federal, state and local regulations, and follow the USC Infectious Waste Management Plan.

10. Disposable Sharps

Contaminated sharps shall be discarded immediately or as soon as feasible in containers that are capable of being sealed, puncture resistant, leak proof on sides and bottom and labeled or color coded.

During use, containers for contaminated sharps shall be easily accessible to personnel and located as close as is feasible to the immediate area where sharps are used or can be reasonably anticipated to be found (e.g., laundries).

The containers shall be maintained upright throughout use and replaced routinely and not be allowed to overflow.

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

The container shall be placed in a secondary container if leakage of the primary container is possible. The second container shall be capable of being sealed, constructed to contain all contents and prevent leakage during handling, storage and transport, or shipping. The second container shall be labeled or color coded to identify its contents.

Reusable containers shall not be opened, emptied, or cleaned manually or in any other manner that would expose employees to the risk of percutaneous injury.

11. Other Regulated Waste

Other regulated waste shall be placed in containers that are closeable, constructed to contain all contents and prevent leakage of fluids during handling, storage, transportation or shipping. The waste must be labeled or color-coded and closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

12. Laundry Procedures

Laundry contaminated with blood or other potentially infectious materials will be handled as little as possible and will not be sorted or rinsed in the area of use. Such laundry will be placed in appropriately marked (biohazard labeled, or color-coded red bag) bags at the location where it was used.

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13. Labels and Signs

Each department shall ensure biohazard labels are affixed to containers of regulated wastes, refrigerators and freezers containing blood or other potentially infectious materials, and other containers used to store, transport, or ship blood, or other potentially infectious materials.

The universal biohazard symbol shall be fluorescent orange or orange-red. Red bags or containers may substitute for labels; however, regulated wastes must be handled in accordance with the rules and regulations of the organization having jurisdiction. (DHEC)

E. Hepatitis B Vaccination and Testing of Immune Status

1. Hepatitis B Vaccination

USC Lancaster Health Services shall make available the Hepatitis B vaccine and vaccination series to all employees who have occupational exposure.

The University of South Carolina shall ensure that all medical evaluations and procedures including the Hepatitis B vaccine and vaccination series are:

- Made available at no cost to the employee;
- Made available to the employee at a reasonable time and place;
- Performed under the supervision of a licensed physician or under the supervision of another licensed healthcare professional; and
- Provided according to the recommendations of the U.S. Public Health Service.

All laboratory tests (titers) shall be conducted by an accredited laboratory at no cost to the employee.

Hepatitis B vaccination shall be made available after the employee has received the bloodborne pathogens training and within 10 working days of initial assignment to all employees who have occupational exposure unless the employee has previously received the complete Hepatitis B vaccination series, antibody testing has revealed that the employee is immune, or the vaccine is contraindicated for medical reasons. Participation in a pre-screening program is not a prerequisite for receiving Hepatitis B vaccination. If the employee initially declines Hepatitis B vaccination but at a later date while still covered under the standard decides to accept the vaccination, the vaccination shall then be made available. All employees who decline the Hepatitis B vaccination offered shall sign the OSHA required waiver indicating their refusal. (Appendix F)

If a routine booster dose of Hepatitis B vaccine is recommended by the U.S. Public Health Service at a future date, such booster doses shall be made available.

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2. Post Vaccination Testing of Immune Status

Testing for immunity is advised only for persons whose subsequent clinical management depends on knowledge of their immune status. Post vaccination testing is considered for persons at high levels of occupational risk.

Occupational Health Services will offer post vaccination testing free of charge to those employees at high risk for contracting bloodborne disease. The anti-HBS laboratory test will be preformed two to three months after completion of the

Hepatitis B vaccination series to some individuals in the job classifications listed below:

- Health care workers who work in a clinical setting
- Researchers in a laboratory setting who routinely work with human blood or blood components

F. Post Exposure Evaluation and Follow-up

Following the report of an exposure incident, the university shall make immediately available to the exposed employee a confidential medical evaluation, post-exposure evaluation and follow-up. Documentation of the routes of exposure, circumstances under which the exposure incident occurred, and other information related to the exposure incident, shall be addressed by the licensed physician or other licensed healthcare professional who is evaluating the exposure incident.

G. Bloodborne Pathogens Training (Appendix E)

Each department should notify Environmental Health & Safety (EHS) of all employees and new hires to which this policy may apply. EHS will provide the BBP training. The supervisor must ensure the employee attend the BBP training at the time of initial assignment to tasks where occupational exposure may occur, within ninety days after the effective date of the standard, and at least annually thereafter. Each department is responsible for ensuring additional training is repeated on an annual basis. The training shall be tailored to the education and language level of the employee, be provided at no cost to the employee, and offered during the normal work shift. The person conducting the training shall be knowledgeable in the subject matter. The training will be interactive and cover the following:

- A copy of the standard and an explanation of its contents;
- A discussion of the epidemiology and symptoms of bloodborne diseases;
- An explanation of the modes of transmission of bloodborne pathogens;
- An explanation of the University of South Carolina's Bloodborne Pathogen Exposure Control Plan (this program), and a method for obtaining a copy. (On Health and Safety's web site: downloadable documents)

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- The recognition of tasks that may involve exposure.
- An explanation of the use and limitations of methods to reduce exposure: work practice and engineering controls, and personal protective equipment (PPE).
- Information on the types, use, location, removal, handling, decontamination, and disposal of PPE.
- An explanation of the basis of selection of PPE.
- Information on the Hepatitis B vaccination, including efficacy, safety, method of administration, benefits, and offered free of charge.
- Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials. (Appendix G)
- An explanation of the procedures to follow if an exposure incident occurs, including the method of reporting and medical follow-up.
- Information on the evaluation and follow-up required after an employee exposure incident.
- An explanation of the signs, labels, and color- coding systems.

Those who have received training on bloodborne pathogens in the twelve months preceding the effective date of the standard only need training with respect to the provisions of the standard which were not included.

Additional training shall be provided to employees when there are any changes of tasks or procedures affecting the employee's occupational exposure. Each department should notify EHS of any changes in tasks or procedures.

H. Recordkeeping

1. Medical Records

Medical records will be maintained in accordance with OSHA Standard 29 CFR 1910.20. These records shall be kept confidential, and must be maintained for at least the duration of employment plus 30 years.

Occupational Health Services maintains copies of the employee's hepatitis vaccination status including the dates of all the vaccinations and any medical records relative to the employee's ability to receive vaccination.

Medical records for employees with occupational exposure are maintained by the facility that provides the medical evaluation.

2. Training Records (Appendix E)

EHS and each department are responsible for maintaining training records for three years from the date of training. The following information shall be documented:

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

3. Sharps injury log

EHS shall maintain a sharps injury log for the recording of percutaneous injuries from contaminated sharps. The information is recorded and maintained in such a manner as to protect the confidentiality of the injured employee. (29 CFR 1904.6)

4. Availability

All employee records shall be made available to the employee in accordance with 29 CFR 1910.20.

All employee records shall be made available to the Assistant Secretary of Labor for the Occupational Safety and Health Administration and the Director of the National Institute for Occupational Safety and Health upon request.

5. Transfer of Records

If this facility is closed or there is no successor employer to receive and retain the records for the prescribed period, the director of the NIOSH shall be contacted for final disposition.

I. Evaluation and Review

Occupational Health Services is responsible for annually reviewing this program, its effectiveness, and for updating the program as needed.

Appendix A - Work Practice and Engineering Controls

Work Practice Controls:

Each department will be responsible for establishing and implementing their respective safe work practices and engineering controls.

Appendix B - Safety Procedures

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Each department will be responsible for establishing and implementing their respective safety procedures.

Appendix C - Personal Protective Equipment

Each department has been trained and provided with the appropriate personal protective equipment. It is the responsibility of the department supervisor to ensure that proper PPE is utilized.

Appendix D - Housekeeping Procedures

Any contaminated surface will be cleaned and disinfected according to written standards and training procedures.

Appendix E - Training Records

The Director of Safety, along with department supervisors and EHS, will review this plan annually.

OSHA does not require specific training for bloodborne pathogens trainers; however, the trainer must be knowledgeable in the subject matter and conduct training according to the educational level of those needing training.

Training provided by Environmental Health and Safety is documented and all hepatitis vaccination and training records are kept in USC Lancaster Safety Department. Training records must be maintained for a minimum of three years.

Appendix F - Hepatitis B Vaccine Declination

UNIVERSITY OF SOUTH CAROLINA – ENVIRONMENTAL HEALTH & SAFETY

HEPATITIS VACCINATION

The University of South Carolina offers the Hepatitis B vaccination to individuals with occupational exposure to blood or other potentially infectious material. This vaccination is given at no charge to the employee. While vaccination is encouraged, it is not mandatory. However, all employees must complete this form.

Print Name: _____ Signature: _____

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Last Four Digits of SS# _____ Telephone: _____

Email Address: _____ Department/PI: _____

Please check one of the following:

- I have previously been vaccinated for Hepatitis B. (Approximate Date: _____)
- I have not been vaccinated but would like to receive the vaccination.
- I have not been vaccinated and do not wish to be vaccinated at this time (If you decline, please read and sign declination below)

Hepatitis Vaccine Declination

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 infection. I have been given the opportunity to be vaccinated with the Hepatitis B vaccine at no charge to myself. However, I decline the Hepatitis B vaccination at this time. I understand that by declining this vaccination, I continue to be at risk of acquiring Hepatitis B. I understand that I may change my mind at any time and elect to receive the vaccination free of charge.

Signature

Date

The completed form should be sent to:
USC Lancaster Safety Director

Appendix G- - USC Lancaster's Bloodborne Pathogens Exposure Protocol

This protocol applies to all UCS Lancaster campus personnel who have an exposure to human blood or body fluids. Please contact the Director of Campus Safety (6-7085) for any questions or additional information.

Personal action required for needle sticks and other exposures to blood or body fluids:

* If possible, wash or flush the exposed area with soap and/or water immediately.

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- * Seek medical treatment as soon as possible after the incident.
- * Be sure to inform clinical personnel that the injury is an exposure to bloodborne pathogens and/or a needle stick. If possible, needles and other sharps should be placed in a puncture resistant container and given to the medical provider at the treatment facility.

**During normal working hours: Monday-Friday, 8:00 am – 4:00 pm:
Report any suspected exposure to your supervisor as soon as possible, who will direct you to Carolina Urgent Care, located at 1130 Hwy. 9 Bypass, for further treatment.**

After normal working hours and on week-ends and holidays:

Report to the Carolina Urgent Care. If treatment is not available at Carolina Urgent Care, report to Emergency Department at Springs Memorial Hospital, located at 800 W. Meeting Street.

Workers' Compensation covers the following populations who experience a bloodborne pathogens exposure while working on the job:

- All university employees who are exposed while on the job.
- Work study students who are exposed while on the job.

Report the incident to your supervisor as soon as possible but do not delay treatment. A USC Lancaster incident report will need to be completed once treatment is initiated. Those working in satellite clinics and hospitals out of town should seek treatment at the nearest hospital's emergency department.

Students Who Suffer a Non-Job Related Bloodborne Pathogens Exposure during an Enrolled Academic Session should follow the same protocol as listed above for staff.