

LABORATORY BLOODBORNE EXPOSURE CONTROL

A. DEFINITIONS

- **Blood** means human blood, human blood components, and products made from human blood.
- **Bloodborne Pathogens** means pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, HBV and HIV.
- **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 may contain sharps.
- **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.
- **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.
- **HBV** means hepatitis B virus.
- **HIV** means human immunodeficiency virus.
- **Other Potentially Infectious Materials** means
 - The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids;
 - Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and
 - HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.
- **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
- **Universal Precautions** is an approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens.

B. ENGINEERED SHARPS INJURY PROTECTION

OSHA specifies that “safer medical devices, such as sharps with engineered sharps injury protections and needleless systems” constitute effective engineering control, and should be used where feasible. Contaminated needles and other contaminated sharps shall not be bent, recapped or removed unless the employer can demonstrate that no alternative is feasible or that such action is required by a specific medical procedure. Such bending, recapping or needle removal must be accomplished through the use of a mechanical device or a one-handed technique. All contaminated sharps shall be placed in an appropriate puncture resistant, leak proof, and appropriately labeled container.

C. OCCUPATIONAL EXPOSURE DETERMINATION

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. This includes cell lines of human origin and NHP cell lines.

All employees will be assessed using the following criteria to determine occupational exposure risk:

- All Faculty, staff or students that supervise or teach that may be called upon to administer first aid;
- All lab members working with human tissue, blood, body fluids, cell lines, organs, or other potentially infectious materials; and
- Direct patient care activities likely to result in direct or indirect exposure to a patient's blood or body fluids.

D. METHODS OF COMPLIANCE

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

1. COMPLIANCE ACTIONS

- Work Practice Controls and General Lab Safety Practices will be implemented to reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles by a two-handed technique);
- Engineering controls shall be examined and maintained or replaced on a regular schedule to ensure their effectiveness;
- PIs and Supervisors shall ensure that employees and students wash their hands immediately or as soon as feasible after removal of gloves or other personal protective equipment;
- The use of sharps with engineered sharps protections will be utilized where available;

- Specimens of blood or other potentially infectious materials shall be placed in a container which prevents leakage during collection, handling, processing, storage, transport, or shipping; and
- Warning labels which display the biohazard symbol shall be affixed to containers of regulated waste, refrigerators and freezers containing blood or other potentially infectious material; and other containers used to store, transport or ship blood or other potentially infectious materials. These labels shall be fluorescent orange or orange-red or predominantly so, with lettering and symbols in a contrasting color. Red bags or red containers may be substituted for labels.

2. BLOODBORNE PATHOGEN TRAINING

If an individual has been identified as meeting the requirements for occupational exposure they must complete the UMSL Bloodborne Pathogen training on MyLearn prior to assuming duties that may put them in contact with blood or other potentially infectious materials. This training must be done annually. A printed copy of the completed training and must be filed with the LSP awareness certificate.

E. EVALUATION

The following activities should be performed in a post-exposure evaluation:

- Document the route(s) of exposure, and the circumstances under which the exposure incident occurred;
- Identifying and documenting the source individual, unless the employer can establish that identification is infeasible or prohibited by state or local law;
- Test the source individual's blood as soon as feasible and after consent is obtained in order to determine HBV and HIV infectivity. If consent is not obtained, the employer shall establish that legally required consent cannot be obtained. When the source individual's consent is not required by law, the source individual's blood, if available, shall be tested and the results documented. When the source individual is already known to be infected with HBV or HIV, testing for the source individual's known HBV or HIV status need not be repeated;
- Inform the exposed employee of the results of the source individual's testing, and informing the employee of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual;
- Collecting and testing of blood for HBV and HIV serological status; the exposed employee's blood shall be collected as soon as feasible and tested 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 shall be preserved for at least 90 days. If, within 90 days of the exposure incident, the employee elects to have the baseline sample tested, such testing shall be done as soon as feasible;
- Provide post-exposure prophylaxis, when medically indicated, as recommended by the U.S. Public Health Service; and
- Provide counseling and evaluate reported illnesses.