EXPOSURE CONTROL PLAN

PURPOSE:

To control and minimize the transmission of bloodborne pathogens at Xavier University, to provide a safe workplace for all workers and to ensure compliance with the Occupational Safety and Health Administration Standard 29 CFR 1910.1030.

http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10051

POLICY:

All blood and body fluids shall be handled, treated and disposed of properly to provide protection to human health and the environment from the possible hazards of bloodborne pathogens. Hepatitis B vaccine is strongly recommended for current and newly hired employees with occupational exposure.

DEFINITIONS:

Blood: Human blood, human blood components and products made from human blood.

Bloodborne Pathogens: Pathogenic (disease-producing) microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

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

Contaminated Sharps: Any contaminated object that can penetrate the skin (e.g., needles, scalpels, broken glass).

Decontamination: 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.

Employee: An employee of Xavier University.

Engineering Controls: A device or vessel (e.g., sharps disposal container) that isolates or removes the bloodborne pathogen hazard from the workplace.

Exposure Incident: A specific eye, mouth, other mucous membrane, non-intact skin or parenteral contact with blood or other potentially infectious material that results from performance of an employee's duties.

Hand Washing Facilities: A facility providing an adequate supply of running potable water, soap and single use towels or hot air drying machines.

Licensed Healthcare Professional: A person whose legally permitted scope of practice allows him or her to independently perform the activities required by Hepatitis B Vaccination and Post-exposure Evaluation and Follow-up.

Occupational Exposure: Reasonably anticipated skin, eye, mucous membrane or parenteral contact with blood or other potentially infectious material that may result from the performance of an employee's duties

Other Potentially Infectious Materials (OPIM): 1. The following human body fluids: semen, vaginal secretions, 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). 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: Piercing mucous membranes or the skin barrier through such events as needle sticks, human bites, cuts and abrasions.

Personal Protective Equipment: 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.

Prophylaxis: The prevention of disease or a disease, as by treatment.

Regulated Materials: Liquid or semi-liquid blood or OPIM; contaminated items that would release blood or OPIM in a liquid or semi-liquid state if compressed; items caked with dried blood or OPIM and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological materials containing blood or OPIM.

Serological: Pertaining to the serum (or watery) portion of the blood.

Source Individual: 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 situations for the developmentally disabled; trauma victims; clients of drug and alcohol treatment facilities; residents of hospice and nursing homes; human remains; and individuals who donate or sell blood or blood components.

Sterilize: The use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.

Universal Precautions: An approach to infection control. A concept that assumes that all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens. The process of implementing Universal Precautions involves a series of steps that a worker must strictly follow to avoid exposure to blood or OPIM (e.g., personal protective equipment).

Work Practice Controls: Controls that 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).

PROCEDURE:

Exposure Determination

Xavier University has determined and will update annually or whenever necessary the exposure determination for all employees with occupational exposure. The exposure determination is made without regard to the use of personal protective equipment.

The following job classifications have been determined to have a likely chance of occupational exposure to bloodborne pathogens in the performance of their duties sometime during the course of the year:

- House Service Attendants
- Plumbers
- Emergency Maintenance Technicians
- Doctors
- Nurses
- Athletic Trainers
- Police Officers

METHODS OF COMPLIANCE

Universal Precautions

The University has adopted universal precautions to prevent the transmission of infection within its facilities.

Engineering and Work Practice Controls

The University has implemented and will continue to implement engineering and work practice controls to eliminate or minimize employee occupational exposure. Where occupational exposures remain after institution of these controls, the employee must wear personal protective equipment to further reduce or possibly eliminate the occupational exposure.

Every manager shall require that engineering controls are examined and maintained or replaced on a regular schedule to ensure their effectiveness (e.g. replacement of sharps disposal containers when they are three quarters full).

Every manager shall ensure that adequate hand washing facilities are readily accessible to employees.

When adequate hand washing facilities are not readily accessible, the manager shall ensure that appropriate antiseptic hand cleaner in conjunction with a clean cloth/paper towels or antiseptic towelettes are available. When antiseptic hand cleaners or towelettes are used, hands shall be washed with soap and running water as soon as possible.

Managers shall require that employees wash their hands immediately or as soon as feasible after removal of gloves or other personal protective equipment.

Managers shall require that employees wash their hands and any other skin with soap and water or flush mucous membranes with water immediately or as soon as feasible following contact of such body areas with blood or other potentially infectious materials.

Managers shall require that contaminated needles and other contaminated sharps are not bent, recapped or removed. Contaminated needles may be recapped or removed only when no alternative is feasible or such action is required for a specific medical procedure. Such recapping or needle removal must be accomplished through the use of a mechanical device or a one-handed technique.

Managers shall require that eating, drinking, applying cosmetics or lip balm and handling contact lenses be prohibited in work areas where there is reasonable likelihood of occupational exposure.

Managers shall require that food and drink shall not be kept in refrigerators, freezers, shelves, cabinets and countertops or bench tops where blood or other potentially infectious materials are present.

Managers shall require that procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, spraying, splattering, and generation of droplets of these substances.

Managers shall require that specimens of blood or other potentially infectious materials shall be placed in a container that prevents leakage during collection, handling, processing, storage, transport or shipping:

- The container for storage, transport or shipping shall be labeled or color-coded and closed prior to being stored, transported, or shipped. The labeling/color-coding of specimens is not necessary provided containers are recognizable as containing specimens. This exemption only applies while such specimens/containers remain within the facility. Labeling or color-coding is required when such specimen/containers leave the facility.
- The primary container shall be placed within a second container that prevents leakage during handling, processing, storage, transport or shipping and shall be labeled or color-coded according to the requirements of this standard.
- If the specimen could puncture the primary container, the primary container shall be placed within a secondary container that is puncture-resistant

Managers shall require that equipment that may become contaminated with blood or other potentially infectious materials shall be examined prior to servicing or shipping and shall be decontaminated as necessary, unless the manager can demonstrate that decontamination of such equipment or portions of such equipment is not feasible.

- A readily observable label shall be attached to the equipment stating which portions remain contaminated.
- The manager shall require that information concerning the taking of appropriate precautions be conveyed to all affected employees, the servicing representative, and/or the manufacturer, as appropriate, prior to handling, servicing or shipping.

A compliance survey of each department will be performed by the manager of the department, every six months to ensure that all reasonable engineering and work practice controls have been implemented and are being properly observed.

PERSONAL PROTECTIVE EQUIPMENT

When there is occupational exposure, the University must provide at no cost to the employee, appropriate personal protective equipment such as, but not limited to, gloves, gowns, laboratory coats, face shields or masks, eye protection, mouthpieces, resuscitation bags, pocket masks or other ventilation devices. Personal protective equipment will be considered "appropriate" only if it does not permit blood or other potentially infectious materials to pass through to or reach the employee's work clothes, street clothes, undergarments, skin, eyes, mouth or other mucous membranes under normal conditions of use and for the duration of time which the protective equipment will be used.

- **Use** – every manager shall require that the employee uses appropriate personal protective equipment unless the manager shows that the employee temporarily and briefly declined to use personal protective equipment when, under rare and extraordinary circumstances, it was the employee's professional judgment that in the specific instance its use would have prevented the delivery of health care or public safety services or would have 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 by the manager in order to determine whether changes can be instituted to prevent such occurrences in the future.
- **Accessibility** – the manager must ensure that appropriate personal protective equipment in the appropriate size is readily accessible at the worksite or is issued to the employee. Hypoallergenic gloves, glove liners, powder less gloves, or other similar alternatives shall be readily accessible to those employees who are allergic to the gloves normally provided.
- **Repair and Replacement** – the University shall repair or replace personal protective equipment as needed to maintain its effectiveness, at no cost to the employee.
- If blood or other potentially infectious materials penetrate a garment(s), the garment(s) shall be removed immediately or as soon as feasible.
- All personal protective equipment shall be removed prior to leaving the work area.
- When personal protective equipment is removed it shall be placed in an appropriately designated container for storage, washing, decontamination or disposal.
- **Gloves** – gloves shall be worn when it can be reasonably anticipated that the employee may have hand contact with blood, other potentially infectious materials, mucous membranes, and non-intact skin and when handling or touching contaminated items or surfaces.
    - Disposable (single use) gloves such as surgical or examination gloves shall be replaced as soon as practical when contaminated or as soon as feasible if they are torn, punctured or when their ability to function as a barrier is compromised.
    - Disposable (single use) gloves shall not be washed or decontaminated for re-use.
    - Utility gloves may be decontaminated for re-use if the integrity of the glove is not compromised. However, they must 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.
- **Masks, Eye Protection, and Face Shields** – masks in combination with eye protection devices, such as goggles or glasses with solid side shields, or chin-length face shields, shall be worn

whenever splashes, spray, spatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, or mouth contamination can be reasonably anticipated.

- **Gowns, Aprons, and Other Protective Body Clothing** – appropriate protective clothing such as, but not limited to gowns, aprons, lab coats, clinic jackets, or similar outer garments must be worn in occupational exposure situations, the type and characteristics will depend upon the task and degree of exposure anticipated.

HOUSEKEEPING

Area supervisors shall ensure that the work site is maintained in a clean and sanitary condition. All equipment, environmental, and working surfaces shall be decontaminated and cleaned after contact with blood or other potentially infectious materials.

- Contaminated work surfaces shall be decontaminated with an appropriate disinfectant 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.
- Protective coverings, such as plastic wrap, aluminum foil, or imperviously-backed absorbent paper used to cover equipment and environmental surfaces, shall be removed and replaced as soon as feasible when they become visibly contaminated or at the end of the work shift if they may have become contaminated during the shift.
- All bins, pails, cans and similar receptacles for reuse which have a reasonable likelihood of becoming contaminated with blood or other potentially infectious materials shall be inspected and decontaminated on a regularly scheduled basis and cleaned and decontaminated immediately or as soon as feasible upon possible contamination
- Broken glassware which may be contaminated shall not be picked up directly with the hands. It shall be cleaned up using mechanical means, such as a brush and dustpan, tongs or forceps.

Infectious Waste

Sharps Disposal – sharps shall be discarded immediately or as soon as feasible into containers that are closable, puncture resistant, leak-proof on sides and bottom, and labeled or color-coded. These containers shall be easily accessible and located as close as feasible to the area where sharps are used. These containers shall be maintained upright and replaced routinely when three-quarters full. These containers shall be closed prior to removal. These containers shall be placed in a secondary container if leakage is possible. Other infectious Waste shall be segregated at point of origin and red-bagged and boxed appropriately prior to transportation to a licensed treatment facility.

Laundry – all laundry shall be handled as soiled laundry. Laundry shall be handled as little as possible. Laundry shall be bagged (in appropriate color-coded or labeled bag) at the location of use. Wet contaminated laundry should be placed in bags, which prevent leakage of fluids. Managers shall ensure that employees who come in contact with laundry wear gloves and other appropriate personal protective equipment.

HEPATITIS B VACCINATION AND POST-EXPOSURE EVALUATION AND FOLOW-UP

Hepatitis B Vaccine

Hepatitis B vaccine will be made available, at no cost to the employee, to all employees who have an occupational exposure.

Hepatitis B vaccine is highly recommended for all new employees unless the employee has previously completed the vaccine series, there is evidence of natural immunity or a medical contraindication to the vaccine exists.

The hepatitis B vaccine will be offered to all new employees prior to beginning work. All current employees will be offered the vaccine.

Employees refusing to take the vaccine will be asked to sign a declination statement.

Post-exposure Evaluation and Follow-up

Following a report of an exposure incident, the University shall make available to the employee a confidential medical evaluation and follow-up. The following activities should be performed:

- Document the routes of exposure and how the exposure occurred.
- Identify and document the source individual (unless the employer can establish that identification is infeasible or prohibited by state or local law).
- Obtain consent and make arrangements to have the source individual tested as soon as possible to determine HIV, HCV, and HBV infectivity; document that the source individual's test results were conveyed to the employee's health care provider.
- If the source individual is already known to be HIV, HCV and/or HBV positive, new testing need not be performed.
- Assure that the exposed employee is provided with the source individual's test results and with information about applicable disclosure laws and regulations concerning the identity and infectious status of the source individual (e.g., laws protecting confidentiality).
- After obtaining consent, collect exposed employee's blood as soon as feasible after exposure incident, and test blood for HBV and HIV serological status.
- If the employee does not give consent for HIV serological testing during collection of blood for baseline testing, preserve the baseline blood sample for at least 90 days; if the exposed employee elects to have the baseline sample tested during this waiting period, perform testing as soon as feasible.

COMMUNICATION OF HAZARDS TO EMPLOYEES

Labels and Signs

Managers shall ensure that warning labels are affixed to containers of regulated (infectious waste), refrigerators, and freezers containing blood or other potentially infectious material (except as provided below).

- Labels shall include the Biohazard symbol and state "Biohazard" and shall be predominantly fluorescent orange or orange-red.
- Red bags or containers may be substituted for labels.

- Exemptions to the labeling requirement. The following do not need to be labeled:
    - Containers of blood, blood components, or blood products that are labeled as to their contents and have been released for transfusion or other clinical use.
    - Individual containers of blood or other potentially infectious materials that are placed in a labeled container during storage, transport, shipment or disposal.
    - Regulated waste that has been decontaminated.
- Labels required for contaminated equipment shall also state which portions of the equipment remain contaminated.

Information and Training

The University shall provide training to all employees with the potential for occupational exposure. The training shall be provided at the time of initial assignment to tasks where occupational exposure may be expected to take place and at least annually thereafter. All present employees with the potential for exposure will also be trained. The University will provide additional training when tasks are modified in a manner that affects the employee's occupational exposure.

The training program shall contain, at a minimum, the following:

- An accessible copy of the regulatory text of the standard and an explanation of its contents;
- An explanation of the employer's exposure control plan and the means by which the employee can gain a copy;
- A general explanation of the epidemiology and symptoms of bloodborne diseases;
- An explanation of the modes of transmission of bloodborne pathogens;
- An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious material;
- An explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and personal protective equipment;
- Information on the types, proper use, location, removal, handling, decontamination, and disposition of personal protective equipment;
- An explanation of the basis for selection of personal protective equipment;
- Information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, benefits of being vaccinated, and that the vaccine and vaccination will be provided free of charge;
- Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials;
- An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will occur;
- Information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident;
- An explanation of the signs, labels and/or color coding; and
- An opportunity for interactive questions and answers with the person conducting the training session.

The person conducting the training program shall be knowledgeable about the Standard and the prevention, control, and epidemiology of bloodborne pathogens.

Record Keeping

Medical Records: information regarding employees with occupational exposure shall be maintained in the employee's medical record at the McGrath Health and Wellness Center. The record shall include the name and social security number of the employee; a copy of the employee's hepatitis B vaccination status, including the dates of all vaccines and any medical records relative to the employee's ability to receive the vaccine; a copy of all results of examinations, medical testing and follow-up procedures; the employer's copy of the healthcare professional's written opinion, a copy of the Employee Incident report along with the result of the source patient's blood testing, if available. The University shall ensure that the employee health records are kept confidential and will not be disclosed without the employee's written consent or as may be required by law. The employee's health records are maintained for the duration of employment plus 30 years.

Training Records: will be maintained by the individual departments conducting training. Copies of these records will also be forwarded to Environmental Health & Safety, will be maintained for a minimum of three years, and contain the following information:

- The dates of the training session;
- The content or a summary of the training session;
- The names and qualifications of persons conducting the training; and;
- The names and job titles of all participants.

Such records shall be made available, upon request, to employees and representatives of the appropriate state or federal agency.

Sharps Injury Log

In addition to the 1904 Recordkeeping Requirements, all percutaneous injuries from contaminated sharps are also recorded in a Sharps Injury Log. All incidences must include at least:

- Date of the injury
- Type and brand of the device involved (syringe, suture needle)
- Department or work area where the incident occurred
- Explanation of how the incident occurred

This log is reviewed as part of the annual program evaluation and maintained for at least five years following the end of the calendar year covered. If a copy is requested by anyone, it must have any personal identifiers removed from the report.