

Occupational Exposure to Bloodborne Pathogens EXPOSURE CONTROL PLAN

POLICY

Muhlenberg College shall establish a program to protect all personnel who, in the course of their work could reasonably be expected to come into contact with blood, body fluids, or other potentially infectious material. Each work area within the organization shall assure that their personnel are in compliance with the provisions of the college's **Occupational Exposure to Bloodborne Pathogens Exposure Control Plan** as specified.

SCOPE

This plan applies to employees and other members of the Muhlenberg College Community who have a potential to exposure of Bloodborne Pathogens as a result of performing assigned tasks.

DEFINITIONS

Bloodborne Pathogens - Pathogenic microorganisms present in human blood which can cause disease in humans. These pathogens include, but are not limited to the Hepatitis B Virus, (HBV), and the Human Immunodeficiency Virus (HIV), which causes Acquired Immune Deficiency Syndrome (AIDS).

Engineering Controls - a method of control which isolates or allows the removal of bloodborne pathogens hazard from the workplace. Examples include sharp disposal systems, self sheathing needles, etc.

Personnel - Includes but is not limited to employees, students, faculty, and others engaged in any activities at the college where the potential for a blood/body fluid exposure exists.

Personal Protective Equipment (PPE) - Specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes i.e. uniforms, pants, skirts, blouses not intended to function as protection against a hazard are not considered to be personal protective equipment.

Regulated Waste - Liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling; contaminated sharps; pathological and microbiological wastes containing blood or other potential infectious materials.

Work Practice Controls - Controls that reduce the likelihood of exposure by altering the manner in which a task is performed, i.e. recapping a needle.

PURPOSE

One of the major goals of the Occupational Safety and Health Administration (OSHA) is to regulate facilities where work is carried out in a fashion that safe work practices are promoted. The promotion of these practices will minimize the incidence of illness and injury experienced by employees. Relative to this goal, OSHA has enacted the Bloodborne Pathogens Standard, codified as **29 CFR 1910.1030**. The purpose of the Bloodborne Pathogens Standard is to reduce occupational exposure to Hepatitis B Virus (HBV), Human Immunodeficiency Virus (HIV) and other bloodborne pathogens that employees may encounter in their workplace.

In compliance with this standard, the administrative staff at Muhlenberg College has designed and implemented this Exposure Control Plan to meet the letter and intent of the OSHA Bloodborne Pathogens Standard. The objective of this plan is to protect our employees from the health hazards associated with bloodborne pathogens and provide appropriate treatment and counseling should an employee be exposed to bloodborne pathogens.

RESPONSIBILITY

The categories responsible for the effective implementation of the Exposure Control Plan include the Safety Committee and its Chairperson, Department Managers and Supervisors, Educational/Training personnel and employees.

Safety Committee and Chairperson

The Safety Committee and Chairperson will be responsible for overall management and support of our College's Bloodborne Pathogens Program. Activities delegated to this group include:

- Overall responsibility of implementing the Exposure Control Plan
- Looking for ways to improve the Exposure Control Plan, as well as revise and update it as necessary.
- Knowing current legal requirements concerning bloodborne pathogens
- Acting as liaison during OSHA inspections

Department Managers and Supervisors

Department Managers and Supervisors are responsible for exposure control plans in their respective areas. They work with the Safety Committee and our employees to ensure that proper exposure control procedures are followed. They are also responsible for notifying the Education/Training personnel of any changes in personnel.

Education/Training

Our Education/Training Personnel will be responsible for providing information and training to all employees who have potential for exposure to bloodborne pathogens. Activities falling under the direction of this group include:

- Developing suitable education/training programs
- Scheduling periodic training seminars for employees
- Maintaining appropriate training documentation, such as "Sign-up Sheets", Quizzes, etc. Health Services has been selected to coordinate the College's Education/ Training program.

Employees

Our employees have the most important role in our bloodborne pathogens compliance program, for the ultimate execution of much of our Exposure Control Plan rests in their hands. In this role, they must do things, such as:

- Know what tasks they perform that have occupational exposure
- Attend the bloodborne pathogens training sessions
- Plan and conduct all operations in accordance with our work practice controls
- Develop good personal hygiene habits

REFERENCES

Occupational Safety and Health Administration (OSHA) Blood Pathogens Standard, 29 CFR 1910.1030.

AVAILABILITY OF THE EXPOSURE PLAN TO EMPLOYEES

The Muhlenberg College **Occupational Exposure to Bloodborne Pathogens Exposure Plan** is available to our employees at any time. Employees are advised of this availability during their education/training sessions. Copies of the plan are kept in the following offices:

- Health Center
- Campus Safety
- Plant Operations
- Human Resources
- Athletics
- Chemical Hygiene Officer
- Office of the Chairperson, Safety Committee
- Office of the Director, Campus Safety

REVIEW AND UPDATE OF THE PLAN

The College reserves the right to unilaterally revise, modify, review, rescind, or alter the terms and conditions of the policy within the constraints of the law, providing reasonable notice. The plan will be reviewed at least annually, or whenever new or modified tasks and procedures are implemented which affect occupational exposure of our employees.

PROCEDURE

Exposure Control Plan

- Establish a written Exposure Control Plan in accordance with The Occupational Safety and Health Administration's **Bloodborne Pathogen Standard 29 CFR1910.1030**. Identify personnel with "reasonably anticipated" exposure to blood and/or body fluids. Specify how affected personnel are protected and trained.

- Review and update the plan at least annually, and when any new or modified task might impact personnel exposure.
- Insure a copy of the plan is accessible to personnel and OSHA Representative upon request for examination and copying.

Methods of Compliance

There are a number of areas that must be addressed in order to effectively eliminate or minimize exposure to bloodborne pathogens at our College. Five areas that we deal with in this plan are:

- The use of Standard or Universal Precautions
- Establishing appropriate Engineering Controls
- Implementing appropriate Work Practice Controls
- Using necessary Personal Protective Equipment
- Implementing appropriate Housekeeping Procedures

Standard Precautions

In our College, we have observed the practice of “Standard Precautions” to prevent contact with blood and other potentially infectious materials. As a result, we treat all human blood and the following body fluids as if they are known to be infectious for Hepatitis B Virus, HIV, and other bloodborne pathogens:

- Semen
- Vaginal Secretions
- Cerebrospinal Fluid
- Synovial Fluid
- Pleural Fluid
- Pericardial Fluid
- Peritoneal Fluid
- Amniotic Fluid
- Saliva

In circumstances where it is difficult or impossible to differentiate body fluid types (i.e., blood tinged fluids), we assume all body fluids to be potentially infectious.

Engineering Controls

We use engineering controls to eliminate or minimize employee exposure to bloodborne pathogens.

The following engineering controls are used, when needed throughout the College:

Hand washing Facilities

The College will provide hand washing facilities where feasible. When hand washing facilities are not feasible, one of the following will be provided:

- an appropriate antiseptic hand cleanser and clean cloth or paper towels
- antiseptic towelettes until it is possible to wash hands with soap and running water

Containers for contaminated sharps have the following characteristics:

- Puncture resistant
- Color-coded or labeled with biohazard warning label
- Leak-proof on the sides and bottom
- Sharps containers must be replaced periodically, (i.e., when they are approximately $\frac{3}{4}$ full)

Specimen Containers which are:

- Leak-proof
- Color-coded or labeled with biohazard warning label
- Puncture resistant when necessary

Work Practice Controls

In addition to engineering controls, our College uses a number of Work Practice controls to help eliminate or minimize employee exposure to bloodborne pathogens. These work practice controls include the following:

- Following any contact of body areas with blood or any other infectious material, employees wash hands and any other exposed skin with soap and water as soon as possible. They also flush exposed mucous membranes with water.
- Employees wash their hands immediately, or as soon as feasible, after removal of gloves or other personal protective equipment
- In the event of an exposure, employees should contact the Health Center for further direction. If the Health Center is closed, contact Campus Safety for the On-Call Person or for direction for treatment and follow-up.
- Contaminated Needles and other Contaminated Sharps are not bent, recapped, or removed unless:
 - It can be demonstrated that there is no feasible alternative
 - The action is required by a specific medical or research project
 - In the two situations above, the recapping or needle removal is accomplished through the use of a mechanical device or one-handed scoop technique.
- Contaminated sharps are placed in appropriate containers immediately, or as soon as possible after use. Containers should be disposed of when approximately $\frac{3}{4}$ full
- Eating, drinking, smoking, applications of cosmetics/lip balm, and the handling of contact lenses is prohibited in areas where there is reasonable likelihood of occupational exposure.
 - Assure food and drink is not stored in refrigerators, freezers, shelves, cabinets, countertops, or bench tops where blood or other potentially infectious materials are present.
 - Label refrigerators where storage of food and beverage is intended **FOOD ONLY.**
 - Perform all procedures involving blood or other potentially infectious materials in a manner minimizing splashing, spraying, spattering, and generation of droplets.

- Mouth pipetting/ suctioning of blood or other potentially infectious materials is prohibited.
- All procedures involving blood or other infectious materials minimize splashing, spraying, or other actions generating droplets of these materials.
- Specimens of blood or other materials are placed in designated leak-proof containers, appropriately labeled for handling and storage
- If outside contamination of a primary specimen container occurs, that container is placed in a second leak-proof container, appropriately labeled for handling and storage. If the specimen can puncture the primary container, the secondary container must be puncture resistant as well.
- Equipment which becomes contaminated is examined prior to servicing or shipping, and decontaminated as necessary unless it can be demonstrated that decontamination is not feasible
 - An appropriate biohazard warning label is attached to any contaminated equipment identifying the decontaminated portions.
 - Information regarding the remaining contamination is conveyed to all affected employees, the equipment manufacturer, and the equipment service representative prior to handling, shipping, or servicing

Personal Protective Equipment (PPE)

The College provides personal protective equipment to our employees at no cost to them, to protect themselves against bloodborne pathogens exposures

- Appropriate PPE includes but may not be limited to:
 - gloves
 - gowns
 - laboratory coats
 - face shields
 - masks
 - eye protection
 - mouthpieces
 - resuscitation bags
 - pocket masks
 - ventilation devices
 - hoods
 - shoe covers
- Hypoallergenic gloves are readily available to employees who are allergic to the gloves our College normally provides
- Consider PPE appropriate only if it meets the requirements specified in OSHA'S Bloodborne Pathogen Standard.
- Assure appropriate use of PPE, unless one of the following is demonstrated:
 - the affected person temporarily and briefly declined to use PPE based on the seriousness of the individual's condition and the personnel's professional judgment.

- the equipment's use in specific situations would have prevented the delivery of health care or public safety services.
 - would have posed an increased hazard to the safety of the co-worker.
- Cleaning, Laundering and Disposal of PPE
 - The cleaning, laundering and proper disposal of PPE is done at no cost to the employee.
 - Remove immediately, or as soon as feasible, equipment or garments penetrated by blood or other potentially infectious materials.
 - Personnel clothing should be decontaminated and washed within a proper fashion.
 - Muhlenberg College will replace/repair PPE as needed to maintain its effectiveness at no cost to the employee.
 - Gloves will be worn when it can be reasonably anticipated that the employee may have had contact with blood, or other potentially infectious materials, mucus membrane and non-intact skin. Disposable (single use) gloves will be replaced as soon as practical when contaminated, torn or punctured. Disposable gloves are **never** washed or decontaminated for re-use.

General Housekeeping Principles

- Muhlenberg College shall ensure that the worksite is maintained in a clean and sanitary condition by following a schedule and method of decontamination based upon the location in the facility, type of soil present, and the procedure being performed in the area.
- All equipment and environmental surfaces shall be cleaned and decontaminated after contact with blood or other potentially infectious materials.
- Contaminated work surfaces shall be decontaminated with household bleach (Sodium Hypochlorite) in a dilution of 1:10 or 1:100 with water or other appropriate solution. The decontamination shall occur after completion of the procedure, immediately or as soon as feasible when surfaces are overtly contaminated or after any spill of blood or other potentially infectious material.
- Protective coverings used to cover equipment and environmental surfaces shall be removed and replaced as soon as feasible when contaminated.
- Bins, pails, cans, and similar receptacles intended for reuse which have a reasonable likelihood for becoming contaminated with blood or other potentially infectious materials shall be inspected and decontaminated on a daily basis and cleansed as soon as feasible upon visible contamination.
- Broken glassware which is considered contaminated shall not be handled directly with the individual's hands. Contaminated glassware shall be cleaned up with mechanical means, i.e. brush and dust pan, tongs, forceps, etc.

- Splatters or spills of blood or other infectious agents on the floor, sides of benches or elsewhere are immediately decontaminated

Regulated Waste

- Contaminated sharps shall be discarded immediately in closeable, leak-proof, puncture resistant containers. The containers will be easily accessible to personnel in clinical areas where phlebotomy and other related procedures are performed. The red colored containers or identifiers will be maintained in an upright position and are replaced before becoming filled. The containers are sealed prior to transport to the storage area. Red bag waste is placed in a designated freezer within the Health Center where it is packed and prepared for pick-up by a governmentally approved waste management company.
- Other regulated waste shall be placed in red bags that are closable and leak-proof. The infectious waste will be collected from the labeled trash receptacles by the housekeeping staff and placed in the designated freezer. A member of the housekeeping staff and/or Health Center staff will place the bags in a fiberboard container on a regular basis for pick-up in accordance with governmental regulations.

Hepatitis B Vaccination, Post Exposure Evaluation and Follow-Up

Vaccination Program

- Muhlenberg College will provide the Hepatitis B Vaccine series to employees who are considered at high risk for the exposure of blood and body fluids unless the employee has previously received the completed Hepatitis B vaccination series, antibody testing has revealed immunity or the vaccine is contraindicated for medical reasons. The vaccination will be available upon completion of the education program.
- The vaccination will be available at no cost to the employees that have occupational exposure to bloodborne pathogens. Included are employees in the College Health Center, Campus Safety and Security Officers, Housekeepers, and the Athletic Training Staff who have occupational exposure to blood borne pathogens. The college will consider the provision of the administration to individuals in other departments as deem necessary.
- Participation in a pre-screening program is not a prerequisite for receiving the vaccination.
- If the employee initially declines the vaccination, however decides at a later date to accept it, the doses will be administered.
- Employees who decline the vaccination must sign a statement documenting the refusal.
- The Health Services office is responsible for operating the vaccination program

Post Exposure Evaluation and Follow-up

- In occurrences in which an employee is involved in an incident where bloodborne pathogen exposure has occurred, the College addresses the following:

- Making sure that the employee receives appropriate medical consultation and treatment (if required) as quickly as possible
- Investigating the circumstances surrounding the exposure
- *Immediate Treatment:* Affected employee should wash area thoroughly with soap and water. For eye splashes, flush copiously with water
- Post exposure evaluation will be provided to employees who have a documented exposure incident.
 - The college will ensure that all medical evaluations and procedures including the Hepatitis B vaccine and post-exposure evaluation(s) including follow-up care include:
 - no cost provision for employee
 - made available at a reasonable time and place
 - performed by or under the supervision of a licensed physician or by or under the supervision of another licensed healthcare professional
 - provided in accordance to the recommendations of the U.S. Public Health Service current at the time of the event
 - laboratory studies will be conducted at no cost to the employee

Post Exposure Evaluation and Follow-up Procedure

- Following exposure to a bloodborne pathogen, a report will be written to include:
 - When the incident occurred (date and time)
 - Where the incident occurred
 - What potentially infectious materials were involved
 - Type of fluid (i.e., blood)
 - The route(s) of exposure
 - The circumstances under which the exposure incident occurred (type of work being done)
 - How the incident was caused
 - Accident
 - Unusual circumstance (equipment malfunction, etc.)
 - Description of the device being used
 - Identification and documentation of the source individual, unless the employer can establish that identification is infeasible or prohibited by state or local law
 - HIV and HBV status of the source, if known
- Following a report of an exposure incident, Muhlenberg College will make available to the employee a confidential medical evaluation and follow-up through a health care provider on the workman's compensation panel.
- Through the workman compensation evaluation: the source individual's blood shall be tested 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 HIV or HBV status need not be repeated.
- Results of the source individual's testing shall be made available by the workman compensation healthcare provider to the exposed employee, and the employee shall be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.
- Through the workman compensation provider, the exposed employee's blood shall be collected as soon as feasible and tested after consent is obtained for HBV and HIV serologic status. The employee may decline this.
- Post-exposure prophylaxis, when medically indicated, as recommended by the US Public Health Service, Counseling, and evaluation of reported illness will be determined and managed by the workman compensation healthcare provider

Information to be Provided to the Health Care Professional

To assist the workman compensation healthcare provider, the College will forward any documentation that is requested, including:

1. Employee's hepatitis B vaccination
2. A copy of this plan
3. A description of the exposed employee's duties as they relate to the exposure incident
4. Documentation of the route(s) of exposure and circumstances under which exposure occurred
5. Results of the source individual's blood testing, if available
6. All medical records relevant to the appropriate treatment of the employee including vaccination status

HealthCare Professional's Written Opinion

After the evaluation, the workman compensation healthcare provider provides the College with a written opinion evaluating the exposed employees' situation. In keeping with this process, emphasis on confidentiality, the written opinion will contain only the following information:

1. Whether the Hepatitis B Vaccination is indicated for the employee
2. Whether the employee has received the Hepatitis B Vaccine
3. Confirmation that the employee has been informed of the results of the evaluation
4. Confirmation that the employee has been told about any medical condition resulting from the exposure incident which requires further evaluation or treatment

All other findings will remain confidential and will not be included in written report.

Medical Records

Muhlenberg College shall establish and maintain an accurate record for each employee with occupational exposure. The record shall include:

- Name and date of birth of the employee

- Copy of the employee's hepatitis B vaccination status including the dates of all the hepatitis B vaccinations (if given at the College) and any medical records relative to the employee's ability to receive the vaccination
- A copy of results of examination, medical testing, and follow-up procedures
- The employers copy of the healthcare professional's written opinion

The Availability of Records is ensured by the staff at Muhlenberg College and will be made available on request to the appropriate governmentally approved individuals in compliance with regulations. Written consent of the employee is required for requests for medical records (except as required by law).

TRAINING

- Muhlenberg College shall ensure that all employees with occupational exposure to bloodborne pathogens (College Health Center, Campus Safety and Security Officers, Housekeepers, and the Athletic Training Staff) participate in training program which must be provided at no cost to the employee during working hours.
- Training shall be provided at least annually.
- Muhlenberg College shall provide additional training when changes such as modification of tasks or procedures or institution of new tasks or procedures affect the employee's occupational exposure. The additional training may be limited to addressing the new exposure created.
- The training may be accomplished by one of the following methods:
 - Classroom type atmosphere with personal instruction
 - Video programs
 - Training manuals or employee handouts
- The training program shall contain the minimum following elements:
 - An accessible copy of the regulatory text of this standard and an explanation of its contents
 - A general explanation of the epidemiology of symptoms of bloodborne diseases
 - An explanation of the modes of transmission of bloodborne pathogens
 - An explanation of the College's Exposure Control Plan and the means by which the employee can obtain a copy of the written plan
 - An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials
 - An explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and PPE
 - An explanation of the basis for selection of PPE
 - Information on the Hepatitis B vaccine
 - Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious material
 - 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 be made available

- Information on post-exposure evaluation and follow-up that the employer is required to provide for the employee following an incident
- An explanation of the signs and labels and/ or color coding system
- An opportunity for interactive questions and answers with the person conducting the training
- The person conducting the training shall be knowledgeable in the subject matter covered by the elements in the training program as it relates to the workplace that the training will address

Training Records:

Training Records shall include the following information:

- The dates of the training sessions
- Contents or summary of the training session
- The names and qualification of the persons conducting the training
- The names and job titles of all persons attending the sessions
- Training records shall be maintained for three years from the dates on which the training occurred

Labels and Signs

The most obvious warning of possible exposure to bloodborne pathogens is biohazard labels and red color-coded containers.

The following items in our College are labeled appropriately

- Containers of regulated waste
- Refrigerators/ freezers containing blood or other potentially infectious materials
- Sharps disposal containers
- Other containers used to store, transport, or ship blood or other infectious materials
- Contaminated equipment

Sharps Injury Log

Muhlenberg College shall establish and maintain a sharps injury log for the recording of percutaneous injuries from contaminated sharps. The information in the sharps injury log shall be recorded and maintained in such a manner as to protect the confidentiality of the injured employee. The log shall contain at minimum:

- The type and brand of device involved in the incident
- The department or work area where the exposure incident occurred
- The explanation of how the incident occurred

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Reviewed – Safety Committee