# Bloodborne Pathogen Exposure Control Plan

## For Central Michigan University Employees

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**CENTRAL MICHIGAN UNIVERSITY**
**EXPOSURE CONTROL PLAN**
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# EXPOSURE CONTROL PLAN

## I. PURPOSE

One of the major goals of the Michigan Occupational Safety and Health Administration (MIOSHA) is to regulate facilities where work is carried out and to promote safe work practices in an effort to minimize the incidence of illness and injury experienced by employees. Relative to this goal, MIOSHA has enacted the Bloodborne Pathogens Standard, codified as Rule 325.70001-.70018 (Part 554). 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.

Central Michigan University believes that there are a number of good general principles that should be followed when working with bloodborne pathogens. These include:

- Risk of exposure to bloodborne pathogens should never be underestimated.
- It is prudent to minimize all exposure to bloodborne pathogens.
- Departments should institute as many engineering and work practice controls as possible to eliminate or minimize employee exposure to bloodborne pathogens.

This Exposure Control Plan is implemented to meet the requirements of the MIOSHA Bloodborne Pathogens Standard and also to assure that all CMU employees have a safe workplace environment.

The objectives of the Exposure Control Plan are:

- To protect employees from the health hazards associated with bloodborne pathogens.
- To provide appropriate treatment and counseling in the event that an employee is exposed to bloodborne pathogens.
- To provide employees with timely and appropriate training information on bloodborne pathogen related diseases.

## II. GENERAL PROGRAM MANAGEMENT

### A. RESPONSIBLE PERSONS

There are five major categories of responsibility that are crucial to the effective implementation of the Exposure Control Plan. They include:

- The Exposure Control Officer (Manager, Risk Management, Environmental Health & Safety/Emergency Management)

- Deans, Department Chairpersons, Directors, Managers and Supervisors
- Department Exposure Control Coordinator
- Education/Training Coordinators (Manager, Risk Management, Environmental Health & Safety/Emergency Management)
- Employees

The following sections define the roles played by each of these groups in carrying out the plan. If a new employee or department is assigned any of these responsibilities, the Exposure Control Officer is to be notified of the change so that records can be updated.

**1. Exposure Control Officer**

The Exposure Control Officer will be responsible for overall management and support of the Exposure Control Plan. Activities which are delegated to the Exposure Control Officer include, but are not limited to:

- Overall responsibility for implementing the Exposure Control Plan for the entire University and ensuring all contract agreements with any outside contractors who have reasonable anticipated exposure to blood or bloodborne pathogens while performing their tasks at CMU are complying with the bloodborne pathogen standard.
- Working with administrators and other employees to develop and administer any additional bloodborne pathogens related policies and practices needed to support the effective implementation of the Exposure Control Plan.
- Seeking ways to improve the Exposure Control Plan, as well as to revise and update it when necessary.
- Knowing current legal requirements regarding bloodborne pathogens.
- Conducting periodic organization audits to maintain an up-to-date Exposure Control Plan.

The Manager, Risk Management, Environmental Health & Safety/Emergency Management will serve as the University Exposure Control Officer.

**2. Deans, Department Chairpersons, Directors, Supervisors and Managers**

Deans, Department Chairpersons, Directors, Supervisors and Managers are responsible for exposure control in their respective areas. They work directly with the Exposure Control Officer & University Health Services and the employees to ensure that proper exposure control procedures are followed.

## 3. Department Exposure Control Coordinator

The Exposure Control Coordinator for each department of the University that generates infectious waste is responsible for assuring that the waste is appropriately collected, bagged, labeled, and transported to a designated University biohazardous waste collection site. The following departments have identified exposure control coordinators:

Athletics – John Mason
Biology - Tom Schultz
CHIP – Kristen Skiver and Sarah Venman
CMU Police – Cameron Wassman
College of Health Professions – John Lopes and Carol Stevens
Facilities Management – Steven Bunting, Gary Leasher, Ellie Roethlisberger, and Lance Ruter
Residence Life – Kathleen Gardner
University Health Services – Lora Zenz
University Recreation – Kristen Kosuda-Suhr

## 4. Education/Training Coordinator

Activities falling under the responsibility of the Coordinator include:

- Maintaining an up-to-date list of CMU personnel requiring training.
- Developing suitable education/training programs.
- Scheduling periodic training programs for employees
- Maintaining appropriate training documentation such as sign-in sheets, etc.
- Periodically reviewing the training programs with the Exposure Control Officer, Deans, Directors, Chairpersons, etc. to include appropriate new information.

The Education/Training Coordinator is the Manager, Risk Management, Environmental Health & Safety/Emergency Management.

## 5. Employees

The employees have the most important role in the bloodborne pathogens compliance program, for the ultimate effectiveness of the Exposure Control Plan rests in their hands. Employee responsibilities include:

- Knowing what tasks they perform that have occupational exposure.
- Attending the bloodborne pathogens training programs.

- Planning and conducting all operations in accordance with the work practice controls.

- Developing and maintaining good personal hygiene habits, such as hand washing.

### B. AVAILABILITY OF THE EXPOSURE CONTROL PLAN TO EMPLOYEES

To help employees with their efforts, Central Michigan University's Exposure Control Plan is available to CMU employees at any time. Employees are advised of this availability during their education/training sessions. The Exposure Control Plan can be found at www.cmich.edu/cmuehs.

### C. REVIEW AND UPDATE OF THE PLAN

It is important to keep the Exposure Control Plan up-to-date. To ensure this, the plan will be reviewed and updated under the following circumstances:

- Annually.

- Whenever new or modified tasks and procedures are implemented which affect the occupational exposure of employees to bloodborne pathogens.

- Whenever employees' jobs are revised such that new instances of occupational exposure may occur.

- Whenever new functional positions are established that may involve exposure to bloodborne pathogens.

## III. EXPOSURE DETERMINATION

One of the keys to successfully implementing the Exposure Control Plan is identification of the exposure situations that employees may encounter. The exposure determination was performed by the Exposure Control Committee through the use of a questionnaire distributed to Deans, Department Chairpersons, Directors, Managers and Supervisors. Determination was made without regard to the use of personal protective equipment.

Appendix A contains the following information.

- CATEGORY A: Job classifications in which all or some employees have occupational exposure to bloodborne pathogens.

## IV. METHODS OF COMPLIANCE

There are a number of areas that must be addressed in order to effectively eliminate or minimize exposure to bloodborne pathogens. Deans, Department Chairpersons, Directors, Managers, and Supervisors are responsible for ensuring compliance with the CMU Exposure Control Plan. Areas dealt with in the plan are:

- Training and Education.

- Following Universal Precautions.
- Establishing appropriate Engineering Controls.
- Implementing appropriate Work Practice Controls.
- Using necessary Personal Protective Equipment.
- Proper Disposal of Infectious Waste.
- Implementing appropriate Housekeeping Procedures.

Each area is reviewed with the employees during their bloodborne pathogens related training (see the "Training & Education" Section VII of this plan for additional information). By rigorously following the requirements of MIOSHA's Bloodborne Pathogens Standard in these seven areas, it is expected this will eliminate or minimize the employees' occupational exposure to bloodborne pathogens as much as possible.

## A. UNIVERSAL PRECAUTIONS

The term "Universal Precautions" refers to a method of infection control developed by the Centers for Disease Control and the National Institute of Health in which blood and body fluids of all people are handled as if they contain bloodborne pathogens.

Body fluids to which Universal Precautions apply:

- Blood and other body fluids containing visible blood. (Blood is the single most important source of HIV, HBV, and other bloodborne pathogens in the occupational setting.)
- Semen and vaginal secretions.
- Body fluids. (Spinal fluid, joint fluid, fluid surrounding the heart and lungs, or amniotic fluid.)
- Any undetermined body fluid. (In circumstances where it is difficult or impossible to differentiate between body fluid types, we assume all body fluids to be potentially infectious.)

At Central Michigan University, the practice of Universal Precautions is observed to prevent contact with blood and other potentially infectious materials. All human blood and body fluids are treated as if they are known to be infectious for HBV, HIV and other bloodborne pathogens.

Body fluids that do not transmit bloodborne diseases unless contaminated with blood are listed below. Because these fluids can transmit other infection(s), Universal Precautions still apply and must be followed.

- urine
- feces
- sweat
- vomitus
- nasal secretions
- sputum, phlegm (lung secretions)
- tears
- saliva

Materials in addition to human blood that may be capable of transmitting bloodborne pathogens include:

- The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental settings, (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)

- HIV-containing cell or tissue cultures, organ cultures, and HIV or HBV-containing culture media or other solutions as well as human cell cultures not shown to be free of bloodborne pathogens

- Organs, or other tissues from experimental animals infected with HIV or HBV.

## B. ENGINEERING CONTROLS

Engineering Controls are used to eliminate or minimize employee exposure to bloodborne pathogens. Equipment such as sharps disposal containers, biological safety cabinets and ventilating laboratory hoods are used as appropriate. In addition, the Exposure Control Officer may inspect areas, as needed, to identify the following, but is not limited to:

- Areas where engineering controls are currently employed.

- Areas where engineering controls can be updated.

- Areas currently not employing engineering controls, but where engineering controls could be beneficial.

The following engineering controls are to be used throughout the University:

1. **Hand washing facilities** (or antiseptic hand cleansers or antiseptic towelettes) are readily accessible to all employees who have the potential for exposure. If waterless hand cleansers or towelettes are used, the employee must follow-up with soap and water wash as soon as feasible.

2. **Safer sharps devices** are to be used where appropriate in order to reduce the risk of injury from needlesticks and other sharp instruments. (See Section G : Sharps Injury Protection Program). **Note:** Needles that will not become contaminated during use (e.g., those used to withdraw medication from vials) are not required to have engineering controls.

3. **Sharps containers** for contaminated sharps are located in areas where sharps (needles, scalpels, broken glass, broken capillary tubes, exposed ends of dental wires or any other material/object that could penetrate the skin) are used and have the following characteristics:

   - Puncture-resistant
   - Color-coded and/or labeled with a biohazard warning label
   - Leak-proof on the sides and bottom
   - Closable

   Containers for reusable sharps must meet the same requirements as containers for disposable sharps, with the exception that they are not required to be closable.

   Reusable sharps will not be stored or processed in a manner that requires reaching into containers of contaminated sharps.

4. **Storage containers** are used to reduce the possibility for an environmental release of potentially infectious materials. Primary containers should be designed to be:

   - Leak-proof
   - Puncture resistant
   - Closable
   - Labeled with the biohazard symbol

   Examples of containers that must be labeled as biohazardous if storing blood or potentially infectious materials:

   - Refrigerator
   - Freezer
   - Liquid nitrogen tank
   - Incubator

5. **Transport containers** are secondary containers used to reduce the possibility of an environmental release of potentially infectious materials when transporting biological materials between campus facilities as well as over roadways.

   a. Use primary containers designed to contain the material being transported.

b. Place primary sample containers into a leak-resistant securely covered secondary container for transport (i.e., a cooler with a latch able lid).

c. If sample materials contain liquids, place enough absorbent material (i.e., paper towels) in the secondary container to absorb all free liquids in the event of breakage or leakage.

d. Package primary containers in the secondary container in a manner that will reduce shock and/or rupture. (Bubble wrap or similar shock-absorbing "spacer" materials may be used.)

e. Label secondary containers with a brief description of the contents and an emergency contact name and phone number. Containers used for transporting blood specimens (regardless of source) or specimens known to or suspected to contain a pathogen (affecting humans or animals) should be additionally labeled with the biohazard symbol.

f. Use a University-owned vehicle for transport. Store and secure the transport container in a location in the vehicle whereby if an accident were to occur, the container or its contents will not be an exposure risk to the driver or the environment.

g. When preparing potentially infectious materials to be moved off campus, use a primary container as described previously, enclosed in a secondary container that contains enough shock-resistant, absorbent material to accommodate the contents of the primary container.

h. The secondary container must then be placed in an appropriate shipping container that is labeled in accordance with applicable shipping regulations. For more information and assistance regarding packaging of potentially infectious materials for off campus shipment, contact Tom Schultz at 774-3279.

6. **Autoclaves** are available in some departments to decontaminate solid biohazardous waste. The departments are responsible for monitoring the equipment to assure that proper sterilization occurs. Proper instrumentation will be used to verify that time, temperature, and steam are adequate. In addition, Facilities Management will provide an annual check of all autoclaves on campus used for decontaminating biological wastes.

7. **Emergency eyewash stations** are in close proximity to workstations where employees perform tasks that produce splashes of potentially infectious materials. Eyewash stations should meet the following ANSI requirements.

a. Provide at least 0.4 gallons of water per minute for 15 continuous minutes, flushing both eyes simultaneously with hands free to hold eyes open.

b. Eye wash facilities must not exceed 95 psi (pounds per square inch) water flow pressure.

c. Eye wash facilities are flushed on a regular basis. A log documenting the recommended weekly 5 minute flush is encouraged.

8. **Appropriate containers for other regulated waste** are used.

9. **Mechanical pipettes** are used. (Pipetting by mouth is specifically prohibited by MIOSHA).

10. **Laboratory equipment specific to the type of work involved** is used.

11. **Self-retracting needles** will be used in all situations where needles are to be used. This shall include but not be limited to, drawing blood, administration of shots, etc.

12. **Trunk Pack.** Each CMU Police car has a trunk pack that includes personal protective equipment as well as a biohazard waste bag. Additional biohazard materials are stored in the first aid cabinet in the storage room.

## C. WORK PRACTICE CONTROLS

A number of Work Practice Controls to help eliminate or minimize employee exposure to bloodborne pathogens are utilized. Overseeing the implementation of Work Practice Controls is the responsibility of the supervisors. They work in conjunction with Deans, Directors, Chairpersons, Managers or designees and the Training Coordinator to effect this implementation.

The following Work Practice Controls are part of the Bloodborne Pathogens Compliance Program.

1. Eating, drinking, smoking, applying cosmetics or lip balm and handling contact lenses are prohibited on work surfaces that carry an inherent potential for contamination. Food and drink must not be stored in refrigerators, freezers, or cabinets where blood or other potentially infectious materials are stored. Such storage equipment must be clearly labeled to prevent this possibility.

2. Hands and other skin surfaces contaminated with potentially biohazardous material must be washed immediately and thoroughly with soap and water. Hands must be washed immediately after gloves are removed, even if the gloves appear to be intact. Following any contact of body areas with blood or any other infectious materials, the employees will wash the affected area and any other exposed skin with soap and water as soon as possible. They will also flush exposed mucous membranes with water.

3. Precautions shall be taken to prevent injuries caused by needles, scalpels, or other sharp instruments. Used needles shall not be bent, broken, reinserted into their original sheaths, removed from disposable syringes, or otherwise manipulated by hand. After they are used, disposable syringes, needles, scalpel blades, and other sharp items shall be placed in a puncture resistant container. Puncture resistant containers shall be located as close as practical to the use area and shall be available to all persons using needles (including diabetic students, faculty and staff on campus). These containers shall be labeled "Biohazard."

4. All persons who have open wounds or weeping skin rashes shall refrain from all direct patient/client care, potentially hazardous laboratory procedures, and from handling patient-care equipment until the condition resolves. Cuts or abrasions shall be protected with a dressing and gloves prior to performing any procedure involving contact with potentially infectious materials.

5. Pregnant persons shall be especially familiar with and strictly adhere to Universal Precautions. Infection in the mother places the fetus at risk of acquiring the infection.

6. Blood spills shall be cleaned up promptly with a disinfectant solution such as a fresh 1:10 dilution (1 part bleach to 10 parts water) of liquid chlorine bleach (5.25% sodium hypochlorite), or an approved hospital disinfectant. Studies have shown that HIV is inactivated rapidly after being exposed to commonly used chemical germicides. Germicides vary in their activity against infectious agents and in the time needed for disinfection. Manufacturer's guidelines shall be followed.

7. Large work areas contaminated by blood or body fluids must be thoroughly cleaned, flooded with a liquid germicide, cleaned again, and decontaminated with fresh germicide.

8. Medical equipment that requires sterilization or disinfection shall be thoroughly cleaned before disinfection and care must be taken to follow manufacturer's guidelines for compatibility with the germicide.

9. Contaminated laundry shall be placed in labeled or color-coded, leakproof containers at the location where it was used. Employees who have contact with contaminated laundry will wear appropriate personal protective equipment. Contaminated footwear shall be autoclaved and laundered or discarded as Biohazardous.

10. HBV vaccine shall be offered, at department expense, to all persons whose occupational tasks place them at risk of exposure to blood or other potentially infectious materials.

11. All Deans, Department Chairpersons, Directors, Supervisors, and/or Managers shall be responsible for informing persons of any special precautions pertinent to their area.

12. No human immunodeficiency virus (HIV), hepatitis B virus (HBV), hepatitis C virus, or other bloodborne pathogen shall be used for research purposes on campus without prior approval of the Dean of Graduate Studies and the Institutional Review Board (IRB) when appropriate. All National Institute of Health (NIH) and Center for Disease Control (CDC) guidelines shall be followed. The University Exposure Control Officer shall be responsible for notifying the Director of Risk Management, Environmental Health & Safety/Emergency Management and the CMU Police Department whenever bloodborne pathogens are to be used for research purposes at Central Michigan University.

13. All procedures involving blood or other infectious materials should be conducted in such a manner as to minimize splashing, spraying, or other actions generating droplets of these materials.

14. If outside contamination of a primary specimen container occurs, that container is placed within 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.)

15. Self-retracting needles shall be used in all situations were needles are to be used, such as drawing blood and administration of shots.

16. Broken glassware must be picked up by mechanical means, not directly with hands. Broken glassware shall also be placed in a “sharps” container or other puncture resistant container.

17. Contaminated needles and other contaminated sharps are not bent, recapped or removed. They shall be placed in a puncture resistant container and labeled Biohazard. These containers are located throughout the University.

18. When dealing with a patient that is actively coughing and there is the possibility of splattering blood or body fluids, goggles/glasses and a disposable mask will be worn.

19. A mechanical device (BVM or pocket mask with one-way valve or Micro shield Mouth to Mouth Resuscitation Barrier) will be used for all respiratory assistance or resuscitation.

20. To preserve contaminated criminal evidence, it will be collected and placed in a closed, labeled/color-coded container to prevent leakage, such as a plastic bag or a pan with a lid for transport to the evidence room. Upon receipt at the evidence room, the material will be removed from the container and permitted to air-dry. The law enforcement officer performing this task will utilize the proper protective clothing such as gloves. When the evidence is dry it will be placed in a proper closed specimen container and labeled Biohazardous. The original container will be autoclaved, decontaminated or disposed of as Biohazardous Waste.

21. Equipment that becomes contaminated is examined prior to servicing or shipping, and decontaminated as necessary (unless it can be demonstrated that decontamination is not feasible).

    a. An appropriate biohazard warning label is attached to any contaminated equipment, identifying the contaminated portions.

    b. Information regarding the remaining contamination is conveyed to all affected employees, the equipment manufacturer and the equipment service representative prior to handling, servicing, or shipping.

When a new employee enters the department or an employee changes jobs within the department having Category A positions, the following process takes place to ensure that they are trained in the appropriate work practice controls:

- The employee's job classification, the tasks and procedures that they will perform are checked against the Job Classification and Task Lists which have been identified in the Exposure Control Plan as those in which occupational exposure occurs.

- If the employee is transferring from one job to another within the department, the job classifications and tasks/procedures pertaining to their previous position are also checked against these lists.

- Based on this "cross-checking" the new job classifications and/or tasks and procedures which will bring the staff member into occupational exposure situations are identified.

- Employee training is then offered through the University's Education/Training Coordinator regarding any work practice controls that the employees are not experienced with.

- HBV vaccine shall be offered, at department expense, to all persons whose occupational tasks place them at risk of exposure to blood or other potentially infectious materials.

## D. PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment is the employee's last line of defense against bloodborne pathogens. Personal protective equipment must be provided at no cost to employees to protect them against such exposure. This equipment includes, but is not limited to:

- Gloves

- Gowns

- Laboratory coats

- Face shields/masks

- Safety glasses
- Goggles
- Mouthpieces
- Resuscitation bags
- Pocket masks
- Hoods
- Shoe covers

The Dean(s), Department Chairperson(s), Director(s), Supervisor(s), and/or Manager(s) is responsible for ensuring that all work areas have appropriate personal protective equipment available to employees.

Employees are trained regarding the use of appropriate personal protective equipment for their job classifications and tasks/procedures they perform. Initial training about personal protective equipment is completed at the time the Exposure Control Plan is implemented for the department. Additional training is provided when necessary, if an employee takes a new position or new job functions are added to their current position.

Any training conducted should be coordinated with the Manager, Risk Management, Environmental Health & Safety/Emergency Management. This will allow for one universal type of training used by all departments on campus. This will also allow for better recordkeeping and tracking of employee training records. The Manager, Risk Management, Environmental Health & Safety/Emergency Management does not have to be part of the training class, but should be knowledgeable that it is being conducted.

To determine whether additional training is needed, the employee's supervisor, along with the Exposure Control Officer will compare the employee's previous job classification and tasks versus those for any new job or function that they undertake. Any needed training is provided by their department manager or supervisor working with the Exposure Control Officer.

Protective barriers reduce the risk of exposure of a person's skin or mucous membranes to fluids that require Universal Precautions. The following are required protective barriers.

1. Gloves shall be worn for touching human blood, body fluid, mucous membranes, or skin with open wounds or weeping rashes; for touching items or surfaces soiled with blood or body fluids; for performing venipuncture or other procedures which enter blood vessels.

a. Latex or nitrile exam gloves shall be used for all medical and laboratory procedures. Hands shall be washed and gloves changed between patient contacts. Latex or nitrile gloves shall NOT be washed. Use of soap compromises their ability to protect.

   Disposable gloves are replaced as soon as practical after contamination or if they are torn, punctured or otherwise lose their ability to function as an exposure barrier.

b. General-purpose utility gloves (rubber household gloves) shall be used for housekeeping chores involving potential blood contact and for instrument clean-up or decontamination procedures. Gloves extending beyond the wrists are preferable.

   Utility gloves are decontaminated for reuse unless they are cracked, peeling, torn or exhibit other signs of deterioration, at which time they are disposed of.

2. Masks, protective goggles, and face shields shall be worn if aerosolization, splashing, spraying, or spattering of droplets of infectious materials is likely to occur.

3. Gowns or fluid-proof aprons, laboratory coats, or other protective clothing shall be worn if blood spattering is likely.

   Any garments including uniforms penetrated by blood or other infectious materials are to be removed immediately if feasible, or as soon as possible. Garments shall be placed in biohazardous waste bags for cleaning or disposal.

4. Surgical caps/hoods, and/or shoe covers/boots are used in any instances where gross contamination is anticipated.

5. Disposable personal protective equipment shall be disposed of properly and not reused. Reusable equipment shall be decontaminated properly soon after use.

6. All personal protective equipment shall be removed before leaving the work area and shall be placed in an appropriately designated area or container for storage, washing, decontamination, or disposal.

7. If a garment is penetrated by blood or other potentially infectious materials, the garment shall be removed immediately or as soon as feasible.

8. An employee shall wash his or her hands immediately after removing gloves or other protective clothing, as soon as possible after hand contact with blood or other potentially infectious material, and upon leaving the work area. Hand-washing shall be completed using the appropriate facilities, such as utility or rest room sinks.

## E. HOUSEKEEPING

Departments and units, with the assistance of Facilities Management or other trained employees will adhere to the following practices:

1. All equipment and surfaces are cleaned and decontaminated as soon as feasible after contact with blood or other potentially infectious materials.

2. Spill Kits designed for use in cleaning spills of blood and/or other potentially infectious materials will be readily accessible to custodians.

3. Protective coverings are removed and replaced:

    - As soon as it is feasible when overtly contaminated.

    - At the end of the work shift if the surface may have been contaminated during that shift.

4. All pails, bins, cans and other receptacles intended for routine use are inspected, cleaned and decontaminated as soon as feasible if visibly contaminated.

5. Potentially contaminated broken glassware is picked up using mechanical means, such as dustpan and brush.

6. Contaminated reusable sharps are placed in containers that do not require hand processing.

7. Facilities Management is responsible for setting up cleaning and decontamination schedules and assuring that the work is carried out.

## F. INFECTIOUS WASTE DISPOSAL

1. Infectious waste is defined as follows:

    - Cultures and stocks of infectious agents and associated biologicals, including laboratory waste, biological production wastes, discarded live and attenuated vaccines, culture dishes, and related devices.

    - Liquid human and animal waste, including blood and blood products, and body fluids (as defined under Universal Precautions). This includes materials crusted or soaked with blood or body fluids, but does not include urine.

    - Pathological waste (human organs, tissues, body parts, fluids).

    - Contaminated sharps (needles, scalpels, syringes, etc.).

    - Contaminated wastes from animals that have been exposed to agents infectious to humans, these being primarily research animals.

2. The Department Exposure Control Coordinator for each department of the University that generates infectious waste is responsible for assuring that the waste is appropriately collected, bagged, labeled, and transported to a designated University biohazardous waste collection site. The Biosafety Officer (BSO) or his/her designee monitors the disposal of infectious waste at Central Michigan University. The disposal of infectious waste shall be in accordance with applicable federal, state, and local regulations.

3. Medical, biological, and other infectious wastes must be disposed of in designated containers or bags that are color-coded, labeled, and tagged as "biohazard". Questions regarding safe disposal shall be directed to the Biosafety Officer.

   Starting on the date that the Exposure Control Plan is implemented, the following procedures are used with all types of regulated wastes:

   They are discarded and “bagged” in containers that are:

   - Closeable.
   - Puncture-resistant.
   - Leak-proof, if potential for fluid spill or leakage exists.
   - Red in color or labeled with the appropriate biohazard warning label.
   - Waste containers are maintained uptight, routinely replaced and not overfilled.
   - Contaminated laundry is handled only when wearing proper PPE and is not sorted or rinsed where it is used.
   - Whenever the employees move containers of regulated waste from one area to another, the containers are immediately closed and placed inside an appropriate secondary container if leakage is possible from the first container.

## G. SHARPS INJURY PROTECTION PROGRAM

Supervisors of all departments who have employees with risk of occupational exposure to bloodborne pathogens are responsible for:

- Considering and, where appropriate, using effective engineering controls, including safer sharps devices, in order to reduce the risk of injury from needlesticks and from other sharp medical instruments.

Note: An appropriate safer sharps device includes only devices whose use, based on reasonable judgment in individual cases, will not jeopardize patient or employee safety or be medically contraindicated.

For more information on safer sharps devices and manufacturers, contact University Health Services at 989-774-3944 or healthservices@cmich.edu.

## V. HIV, HBV OR HCV RESEARCH LABORATORIES AND PRODUCTION FACILITIES

HIV and HBV research laboratories present increased risk for occupational exposure to bloodborne pathogens. All laboratories engaged in bloodborne pathogens infectious disease research will reduce employee exposure risk by providing additional administrative controls, protective equipment, information and training beyond that required for research laboratories not involved in such work. At the time of this update, CMU does not have HIV or HBV research laboratories on campus.

## VI. HEPATITIS B VACCINATION, POST-EXPOSURE EVALUATION AND FOLLOW-UP

Exposure incidents can occur even with good adherence to exposure prevention practice. A Hepatitis B Vaccination Program and procedure for post-exposure evaluation and follow-up have been established. (See Appendices B, C, G and K).

### A. VACCINATION PROGRAM

Central Michigan University has implemented a vaccination program at University Health Services. This program is offered at no cost to all employees who have occupational exposure to bloodborne pathogens.

The vaccination program consists of a series of three inoculations over a six-month period. As part of their bloodborne pathogens training, the employees have received information regarding hepatitis B vaccination, including its safety and effectiveness.

Employees who complete the vaccine series are tested for hepatitis B surface antibody (anti-HBs) 1 to 2 months after the third dose. If anti-HBs is negative, 3 more doses are given with the same spacing and the employee is retested 1 to 2 months after the last dose. If they then test positive for anti-HBs, no further treatment is necessary. If anti-HBs is again negative, the employee is considered a non-responder and should be evaluated to determine if hepatitis B surface antigen (HbsAG) positive. Employees who are non-responders and who are HbsAG negative and who are exposed should receive 2 doses of hepatitis B immune globulin (HBIG) 1 month apart.

Previously vaccinated employees with an anti-HBs negative test on file need no further treatment. Anti-HBs testing is not recommended for previously vaccinated employees without documentation of anti-HBs testing on file unless there is an exposure.

University Health Services is responsible for setting up and operating the vaccination program. The vaccination program is under the supervision of Dr. George Kikano, Dean, College of Medicine.

Employees identified as Category A for exposure purposes are listed in this plan (Appendix D). To ensure that all employees are aware of the vaccination program, it is thoroughly discussed in the bloodborne pathogens training.

## B. POST-EXPOSURE EVALUATION AND FOLLOW-UP

If an employee is involved in an incident where exposure to bloodborne pathogens may have occurred, efforts should be focused on getting medical consultation and treatment expeditiously. **After immediately flushing the wound or site of exposure with water, the following procedure should be initiated:**

1. The employee must report the incident to their supervisor **who will then refer the exposed employee and the source individual, if available, to Health Services for immediate evaluation and treatment**. If Health Services is closed, the exposed employee will be directed to McLaren Hospital Emergency Room for initial evaluation and care. When initial treatment is provided somewhere other than Health Services, the exposed employee must report to Health Services the next business day for assessment and follow-up.

2. The supervisor must inform the Workers' Compensation Office of the exposure by calling 774-7177 (24-hour voice mail service) as soon as possible after the exposure incident.

3. The Workers' Compensation Office will generate an Employee Accidental Personal Injury Report form and route it to the supervisor for review with the exposed employee and appropriate signatures.

4. University Health Services follows the procedure for HIV, HBV, and HCV Potential Exposure (Appendix L).

5. University Health Services will schedule follow-up appointments to monitor the employee's post-exposure medical status.

The University Exposure Control Officer as well as the department Exposure Control Officer, or his/her designee, investigates every exposure incident that occurs within the department. This investigation is initiated within as soon as possible after the incident occurs. The exposed employee is referred to University Health Services by the supervisor or acting supervisor where the exposure incident investigation begins.

After University Health Services (in collaboration with the department) evaluates the exposed employee's situation, an opinion report will be written documenting that the staff member was informed of 1) evaluation results and the need for follow-up; 2) whether Hepatitis B vaccine is indicated and was received. Recommendations will be prepared to avoid similar incidents in the future.

In order to make sure that the University employees receive the best and most timely treatment if an exposure to bloodborne pathogens should occur, the University has set up a comprehensive post-exposure evaluation and follow-up process which includes:

Actions taken as a result of the incident:

- Employee decontamination.

- Cleanup.

- Notifications made.

Much of the information involved in this process must remain confidential, and every effort will be taken to protect the privacy of people involved.

## C. INFORMATION PROVIDED TO THE HEALTHCARE PROFESSIONAL

To assist the healthcare professional the following documents will be forwarded to them:

- A copy of the Bloodborne Pathogen Standard (University Health Services will follow the OSHA Bloodborne Pathogen Standard available online.)
- A description of the exposure incident.
- The exposed employee's relevant medical records.
- Any other pertinent information.

## D. HEALTHCARE PROFESSIONAL'S WRITTEN OPINION

After the consultation, the healthcare professional provides the Worker's Compensation Office with a written opinion evaluating the exposed employee's situation. The exposed employee will also receive a copy of it.

In maintaining the confidentiality of the process, the Healthcare Professional's Written Opinion will contain only the following information:

- Whether hepatitis B vaccination is indicated for the employee.
- Whether the employee has received hepatitis B vaccination.
- Confirmation that the employee has received the results of the evaluation.
- Confirmation that the employee has been informed of any medical condition resulting from the exposure incident that requires further evaluation or treatment.
- All other findings or diagnoses will remain confidential and will not be included in the Healthcare Professional's Written Opinion.

## E. SOURCE INDIVIDUAL TESTING

According to Michigan State Law MCL 333.5204 a police officer, fire fighter, local correctional officer of other county employee, court employee or other person making a lawful arrest who has an exposure to the blood or body fluids of an arrestee, inmate, parolee, or probationer to request that the person be tested for HIV, HBV, and/or HC.

In addition, MCL 333.20191 allows a police officer, fire fighter, medical first responder, emergency medical technician, emergency medical technician-specialist, paramedic, an emergency medical services instructor-coordinator, or any individual assisting an emergency patient ("a good Samaritan"), to request HIV and or HBV testing of an emergency patient if there has been a percutaneous, mucous membrane, or open wound exposure to the blood or body fluids of the emergency patient.

### F. MEDICAL RECORD KEEPING

University Health Services is responsible for setting up and maintaining these records that may include the following information:

- Name of employee.
- Campus ID number of the employee.
- Copies of the results of the examinations, medical testing, and follow-up procedures that took place as a result of the employee's exposure to the bloodborne pathogens.
- A copy of the information provided to the consulting health care professional as a result of any exposure to bloodborne pathogens.

## VII. LABELS AND SIGNS

The most obvious warnings of possible exposure to bloodborne pathogens are biohazard labels. University Stores will maintain a supply of the required biohazard labels and signs for use in campus facilities.

The following items are labeled:

- 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 and other infectious materials.
- Laundry bags and containers.
- Contaminated equipment.

Biohazard signs must be posted at entrances to Bloodborne Pathogen research laboratories and production facilities. The laboratories at Central Michigan University do not currently conduct work which is covered by special signage requirements.


## VIII. TRAINING AND EDUCATION

All employees who have the potential for exposure to bloodborne pathogens are put through a comprehensive annual training program and furnished with as much information as possible on this issue. The employees will be retrained at least annually to keep their knowledge current. Additionally, all new employees, as well as staff changing jobs or job functions, will be given any additional training about their new position requirements at the time of their new job assignment.

The Education/Training Coordinator, is responsible for seeing that the employees who have potential exposure to bloodborne pathogens receive this training. She/he will be assisted by the University's Bloodborne Pathogen Education Committee.

### A. TRAINING TOPICS

1. Central Michigan University shall provide a formal training and education program for persons with exposure or potential exposure to blood or other potentially infectious body fluids (Category A).

2. The training program shall contain the following elements:

   - The Bloodborne Pathogens Standard itself.
   - A general explanation of the epidemiology of HBV, HIV and HCV symptoms associated with clinical illness from these viruses.
   - An explanation of the modes of transmission of HBV, HIV and HCV.
   - An explanation of Central Michigan University’s Exposure Control Plan. This will include an explanation of Universal Precautions, Engineering and Work Practice Controls, and the use of Personal Protective Equipment.
   - A detailed explanation of protective barriers and other personal protective equipment, the basis by which these are selected, and the limitations of these methods of control in preventing exposure as well as their proper use, location, removal, handling, decontamination and disposal.

- An explanation of the signs, labels, tags, and color-coding used to denote biohazards.

- Information on HBV vaccine, including its indications, safety, efficacy, benefits, and CMU's vaccination program.

- An explanation of the procedure to follow if accidental exposure occurs and the medical follow-up that will be made available.

## B. TRAINING METHODS

1. Material shall be used which is appropriate in content and vocabulary to the educational level, literacy, and language background of the persons being trained.

2. Training presentations will make use of several training techniques including, but not limited to the following:

   - Classroom environment with personal instruction

   - Training manuals, educational printed materials

   - On-line training

   - Employee review sessions

   - Interactive hands on demonstrations using items such as personal protective equipment (PPE), biohazard bags, waste disposal, etc.

## C. RECORD KEEPING

The Central Michigan University Office of Risk Management, Environmental Health & Safety/Emergency Management is responsible for maintaining documentation that all CMU employees who have potential exposure to bloodborne pathogens receive training.

**Appendix A**

## EXPOSURE DETERMINATION

All occupations that require procedures or occupation-related tasks that involve exposure or the potential for exposure to blood or other potentially infectious material or that involve a potential for spill or splashes of blood or other potentially infectious material are included in this exposure determination. This includes procedures or tasks conducted in non-routine situations as a condition of employment.

## CATEGORY A

## JOB CLASSIFICATION IN WHICH ALL EMPLOYEES HAVE OCCUPATIONAL EXPOSURE

ATHLETIC TRAINING EDUCATION PROGRAM
- Faculty
- Head Athletic Trainer
- Assistant Athletic Trainer
- Graduate Assistant Athletic Trainer

ATHLETICS
- Assistant Coach
- Athletic Trainer, Certified
- Equipment Room Personnel
- Equipment Room Student Worker/Usher
- Head Coach
- Sports Camp Coach/Counselor
- Team Physician
- Physician Assistant

BIOLOGY
- Faculty/Staff Instructor
- Faculty/Staff Researcher
- Laboratory Assistants
- Graduate Students

CENTRAL HEALTH IMPROVEMENT PROGRAM (CHIP)
- Manager, Employee Health and Wellness
- Coordinator, Prevention/Rehabilitation
- Coordinator, Fitness & Conditioning

CHEMISTRY
- Faculty/Staff Instructor
- Faculty/Staff Researcher
- Laboratory Assistants
- Graduate Students

CHILD DEVELOPMENT AND LEARNING LABORATORY
- Laboratory Director
- Lead Teacher
- Food Service Facilitator

Program Assistants
Classroom Assistants

COLLEGE OF HEALTH PROFESSIONS
Manager, Carls Center
Student Assistants, Carls Center
Coordinator/Business Services, Dean's Office
Coordinator/Security & Events, Dean's Office
Regular Faculty, Physical Education & Sport, Physical Therapy, & Communication Disorders
Full-Time Temporary Faculty, Physical Education, Sport & Physical Therapy, & Communication Disorders
Part-Time Temporary Faculty, Physical Education, Sport & Physical Therapy, & Communication Disorders
Graduate Assistants, Physical Education & Sport
Teaching & Research Graduate Assistants, School of Health Sciences, Communication Disorders
Regular Faculty, School of Health Sciences
Regular Faculty, Physician's Assistant
Full-Time Temporary Faculty, Physician's Assistant
Part-Time Temporary Faculty, Physician's Assistant
Clinical Supervisor/SP Language Pathology, Communication Disorders
Clinical Supervisor/Coordinator Special Programs, Communication Disorders
Clinical Supervisor/Audiology, Communication Disorders
Director/Clinical Instructor/Audiology, Communication Disorders
Director/Clinical Instruction-Sp Language Services, Communication Disorders
Coordinator/Animal Facility, Vivarium
Student Assistants, Vivarium

COLLEGE OF MEDICINE

COMMUNICATION AND DRAMATIC ARTS
Costume Shop
Dance Company
Scene Shop

CMU POLICE
Chief of Police
Captain
Lieutenant
Sergeant
Police Officer
Detective

DINING SERVICES
Cashier
Catering Cook
Cook
Food Service Worker

Head Cook
Management
Relief Employee
Supervisor

FACILITIES MANAGEMENT

Architectural Trades Supervisor
Electrical & Maintenance Mechanics Supervisor
Building Services Supervisors
Senior Caretakers
Caretakers
Architectural Trades Helper
Carpenter, Journeyman
Custodial Repair Technician
Custodians
Director of Facilities Operations
Electrician, Journeyman
Electrician Helper
Kitchen Equipment & Mechanics
Journeyman Auto/Equipment Repair
Journeyman Locksmith
Journeyman Refrigeration & Controls
Maintenance Mechanic, Journeyman
Mason, Journeyman
Painter, Journeyman
Powerhouse Operator, Journeyman
Preventative Maintenance Technician
Beaver Island Maintenance Coordinator
Fire Alarm Technician
Journeyman Welder/Maintenance Mechanic
Water Quality Specialist
Lead Maintenance Mechanic

HUMAN ENVIRONMENTAL STUDIES
Faculty

PHYSICAL EDUCATION
Faculty
Graduate Assistant
Graduate Student
Undergraduate Student

PSYCHOLOGY

- Faculty
- Clinic Director
- Manager ST
- Post-Doctoral Fellows
- Research Scientist
- Temporary Faculty
- Staff – Office Professionals
- Graduate Assistant
- Student Employee
- Student Teaching Assistant
- Students working in faculty labs

RESIDENCE LIFE

- Director, Residence Life
- Associate Director, Residence Life
- Assistant Director, Residence Life
- Residence Hall Director
- Multicultural Advisor
- Residence Assistants
- Building Maintenance Worker, Journeyman
- Desk Receptionists
- Fitness Center Employees (Towers & East Center Complex)
- Building Maintenance Workers Assistants (Students)

UNIVERSITY HEALTH SERVICES

- Licensed Practical Nurse
- Medical Assistant
- Nurse Practitioner
- Physicians
- Physician Assistants
- Registered Nurses

UNIVERSITY RECREATION

All University Recreation professional and student employees, who are required to hold a current CPR/AED certification as a condition of employment.

**Appendix C**

# CENTRAL MICHIGAN UNIVERSITY
## HEALTH SERVICES

## HEPATITIS B

## VACCINATION DECLINATION FORM

Employee Name: _____Department_____

I understand that due to my occupational exposure to blood or other potential infectious materials I may be at risk of acquiring Hepatitis B (HBV) infection. I have been given the opportunity to be vaccinated with Hepatitis B vaccine, at no charge to myself. However, I decline the Hepatitis B vaccination 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.

| | |
|---|---|
| _____ | _____ |
| Printed Name of Employee | Campus ID Number |
| _____ | _____ |
| Employee Signature | Date |
| _____ | _____ |
| Printed Name of Department Representative | Title |
| _____ | _____ |
| Department Representative Signature | Date |

cc: Original: Employee's Dept. Personnel File (BBP training only) or
Patient's Medical Record (Post Exposure Incident)
Risk Management, Environmental Health & Safety (BBP Training Only)

HS238D (5/22/96)

**Appendix D**

## WORK ACTIVITIES INVOLVING POTENTIAL EXPOSURE TO BLOODBORNE PATHOGENS

Below are listed the tasks and procedures in which human blood and other potentially infectious materials are handled and therefore may result in exposure to bloodborne pathogens:

| TASK/PROCEDURE | JOB CLASSIFICATION/DEPARTMENT |
|---|---|
| | **CMU Police** |
| Medical assist | Chief of Police, Captain, Lieutenant, Detective, Sergeants, Officers |
| Auto Accident | Chief of Police, Captain, Lieutenant, Detective, Sergeants, Officers |
| Special events, (dances, parades, football, basketball, and other athletic activities | Chief of Police, Captain, Lieutenant, Detective, Sergeants, Officers |
| Suspect search | Chief of Police, Captain, Lieutenant, Detective, Sergeants, Officers |
| Criminal investigations | Chief of Police, Captain, Lieutenant, Detective, Sergeants, Officers |
| Investigation of serious felony and follow-up, delivery of offender taken into custody | Chief of Police, Captain, Lieutenant, Detective, Sergeants, Officers |
| Police training | Chief of Police, Captain, Lieutenant, Detective, Sergeants, Officers |
| Obtaining evidence and identification such as disposition of dangerous drugs, blood, clothing, sexual assaults | Chief of Police, Captain, Lieutenant, Detective, Sergeants, Officers |
| Investigation of major fires and follow-up | Chief of Police, Captain, Lieutenant, Detective, Sergeants, Officers |

| | |
|---|---|
| Pursuit and emergency driving apprehension of offenders | Chief of Police, Captain, Lieutenant, Detective, Sergeants, Officers |
| Search of police cars | Chief of Police, Captain, Lieutenant, Detective, Sergeants, Officers |
| Cleaning police cars | Journeymen Auto, Equipment Repair, Chief of Police, Captain, Lieutenant, Detective, Sergeants, Officers |
| Disturbances, riots, loud parties, domestic violence, restraint & control of crowds | Chief of Police, Captain, Lieutenant, Detective, Sergeants, Officers |
| Lost & found pick-up and delivery to lost & found office | Chief of Police, Captain, Lieutenant, Detective, Sergeants, Officers |

## Central Health Improvement Program

| | |
|---|---|
| Emergencies & Injury Care (First Aid/CPR/Cleanup) | Manager, Employee Health & Wellness Coordinator/Fitness & Conditioning Coordinator/Prevention & Rehabilitation |
| Participant Biometric Screening | Manager, Employee Health & Wellness Coordinator/Fitness & Conditioning Coordinator/Prevention & Rehabilitation |
| Special Events (scavenger hunt, poker walk, wellness picnic, etc.) | Manager, Employee Health & Wellness Coordinator/Fitness & Conditioning Coordinator/Prevention & Rehabilitation |
| Transport of biohazard waste to Pickup site | Manager, Employee Health & Wellness Coordinator/Fitness & Conditioning Coordinator/Prevention & Rehabilitation |

## College of Medicine

| | |
|---|---|
| Provide Patient Care | College of Medicine |

## Dining Services

| | |
|---|---|
| Custodial Duties | Cashier, Catering Cook, Cook, Food Service W<br>Head Cook, Management, Relief Employee,<br>Supervisor |
| Serving Customers | Cashier, Catering Cook, Cook, Food Service W<br>Head Cook, Management, Relief Employee,<br>Supervisor |
| Cooking/Prepping & Managing a food service establishment | Cashier, Catering Cook, Cook, Food Service W<br>Head Cook, Management, Relief Employee,<br>Supervisor |

## Facilities Management

| | |
|---|---|
| Transfers biohazardous waste | Caretakers, custodians |
| Repairs and maintains piping systems | Journeyman Maintenance Mechanic &<br>Helper<br>Metal Worker |
| Works in bathrooms and kitchens | Maintenance Mechanic Supervisor<br>Journeyman Carpenter<br>Journeyman Painter<br>Apprentice Painter<br>Journeyman Maintenance Mechanic |
| Performs repairs on plumbing fixtures, unsto stools and drains | Journeyman Building Maintenance Workers<br>Journeyman Mason & Helper<br>Journeyman Maintenance Mechanic |
| Unplugs commodes, urinals, sink drains | Custodial, Journeyman BMW, Journeyman<br>Maintenance Mechanic & Helper |
| Cleans restrooms | Custodial |
| Spot wash walls | Custodial |
| Floor maintenance (spills) | Custodial |
| Makes beds and changes linen in guest rooms | Custodial |

| | |
|---|---|
| Collects and disposes of waste materials | Custodial |

## Health Services

| | |
|---|---|
| Biopsy | Licensed Practical Nurse, Medical Assistant, Nu Practitioner, Physician, Physician Assistant, Registered Nurse |
| CPR | Licensed Practical Nurse, Medical Assistant Nurse Practitioner, Physician, Physician Assistant, Registered Nurse |
| Emesis | Licensed Practical Nurse, Medical Assistant Nurse Practitioner, Physician, Physician Assistant, Registered Nurse |
| Epistaxis | Licensed Practical Nurse, Medical Assistant Nurse Practitioner, Physician, Physician Assistant, Registered Nurse |
| I & D | Licensed Practical Nurse, Medical Assistant Nurse Practitioner, Physician, Physician Assistant, Registered Nurse |
| IV | Licensed Practical Nurse, Medical Assistant Nurse Practitioner, Physician, Physician Assistant, Registered Nurse |
| Laceration Repair | Licensed Practical Nurse, Medical Assistant Nurse Practitioner, Physician, Physician Assistant, Registered Nurse |
| Pelvic Exam | Licensed Practical Nurse, Medical Assistant Nurse Practitioner, Physician, Physician Assistant, Registered Nurse |
| Nail Excision | Licensed Practical Nurse, Medical Assistant Nurse Practitioner, Physician, Physician Assistant, Registered Nurse |

| | |
|---|---|
| Wart Treatment | Licensed Practical Nurse, Medical Assistant, Nu Practitioner, Physician, Physician Assistant, Registered Nurse Licensed Practical Nurse, Medical Laboratory Technician, Nurse Practitioner, Physician, Physician Assistant, Registered Nurse |
| Biohazardous Waste Collection | Licensed Practical Nurse, Medical Assistant, Nu Practitioner, Physician, Physician Assistant, Registered Nurse |
| Housekeeping Duties | Licensed Practical Nurse, Medical Assistant, Nu Practitioner, Physician, Physician Assistant, Registered Nurse |
| Spill Cleanup | Licensed Practical Nurse, Medical Assistant, Nu Practitioner, Physician, Physician Assistant, Registered Nurse |
| Wound Irrigation | Licensed Practical Nurse, Medical Laboratory Technician, Nurse Practitioner, Physician, Phys Assistant, Registered Nurse |
| First Aid for Bleeding, Lacerations/ Abrasions, etc. | Licensed Practical Nurse, Medical Assistant, Nu Practitioner, Physician, Physician Assistant, Registered Nurse |

**Residence Life**

| | |
|---|---|
| Bleeding control with minimal bleeding | Director, Residence Life<br>Associate Director, Residence Life<br>Assistant Director, Residence Life<br>Residence Hall Director<br>Building Maintenance Worker |
| Bio-Hazard transport to secondary pick-up site | Director, Residence Life<br>Associate Director, Residence Life<br>Assistant Director, Residence Life<br>Residence Hall Director<br>Building Maintenance Worker |

## Sports Medicine

| | |
|---|---|
| CPR | Certified Athletic Trainer, Graduate Assistant |
| Mouth-mouth respiration | Certified Athletic Trainer, Graduate Assistant |
| Wound Management | Certified Athletic Trainer, Graduate Assistant |
| Skin lesion inspection | Certified Athletic Trainer, Graduate Assistant |
| Blister Care | Certified Athletic Trainer, Graduate Assistant |
| Compound Fracture/Dislocation | Certified Athletic Trainer, Graduate Assistant |
| Callus/Skin Care | Certified Athletic Trainer, Graduate Assistant |
| Scar Management | Certified Athletic Trainer, Graduate Assistant |
| Nose bleed | Certified Athletic Trainer, Graduate Assistant |
| Head Injury | Certified Athletic Trainer, Graduate Assistant |
| Vomit | Certified Athletic Trainer, Graduate Assistant |
| Housekeeping | Certified Athletic Trainer, Graduate Assistant |
| Regulated Waste Transport | Certified Athletic Trainer, Graduate Assistant |

**Appendix E**

## DEFINITIONS

The following is a list of common terms and their definitions as they are used in the Bloodborne Pathogen Exposure Control Plan.

**Amniotic fluid:** Fluid from the uterus.

**Blood:** Human blood, human blood components (e.g., plasma, platelets) and products made from human blood (e.g., immune globulins, albumin).

**Bloodborne pathogens (BBPs):** Pathogenic organisms that are present in human blood or other potentially infectious materials (OPIM) and can infect and cause disease in persons who are exposed to blood containing the pathogen. These pathogens include, but are not limited to, hepatitis B virus (HBV), hepatitis C virus (HCV), and human immunodeficiency virus (HIV).

**Cerebrospinal fluid:** Fluid from the spine.

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

**Decontamination:** 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:** Equipment that is designed to isolate or remove the bloodborne pathogen hazard from the workplace (e.g., sharps disposal containers, biosafety cabinets, autoclaves and safer medical devices such as sharps with engineered sharps injury protections, needleless systems, blunt suture needles, plastic capillary tubes and mylar-wrapped capillary tubes).

**Exposure incident:** A specific eye, mouth, or other mucous membrane, non-intact skin (includes skin with dermatitis, hangnails, cuts, abrasions, chafing, acne, etc.), or parenteral contact with blood or other potentially infectious materials that results from the performance of the employee's duties.

**HBV:** Hepatitis B virus; causes inflammation of the liver and may lead to long term liver damage including cirrhosis and cancer.

**HCV:** Hepatitis C virus; causes inflammation of the liver and can lead to long term liver cancer including cirrhosis and cancer.

**HIV:** Human immunodeficiency virus; attacks critical cells of the immune system which leads to acquired immunodeficiency syndrome (AIDS), a life-threatening condition.

**Needleless Systems:** A device that does not use needles for: 1) the collection of bodily fluids or withdrawal of body fluids after initial venous or arterial access is established; 2) the administration of medication or fluids; or 3) any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps (e.g., intravenous medication delivery systems that administer medication or fluids through a catheter port or connector site using a blunt cannula or other non-needle connection, jet injection systems that deliver subcutaneous or intramuscular injections of liquid medication through the skin without the use of a needle).

**Occupational exposure:** Reasonably anticipated (includes the potential for contact as well as actual contact with blood or other potentially infectious material) skin, eye, mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that may result from the performance of the employee's duties.

**Other potentially infectious materials (OPIM):** Materials in addition to human blood that may be capable of transmitting bloodborne pathogens. These include:

1. The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental settings, (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 media or other solutions as well as human cell cultures not shown to be free of bloodborne pathogens.

4. Blood, organs, or other tissues from experimental animals infected with HIV or HBV.

**Parenteral exposure:** Exposure occurring as a result of piercing the skin barrier or mucous membrane, such as exposure through subcutaneous, intramuscular, intravenous, or arterial routes resulting from needlesticks, human bites, cuts, abrasions, or other mechanical mechanisms.

**Pericardial fluid:** Fluid surrounding the heart.

**Peritoneal fluid:** Fluid from the abdominal cavity that surrounds the major organs.

**Pleural fluid:** Fluid from the lung tissue.

**Personal protective equipment (PPE):** Specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., a uniform, pants, shirt, blouse) not intended to function as protection against a hazard are not considered personal protective equipment.

**Post-exposure follow-up:** In the event of an exposure incident, the mandatory course of action taken by the employer to provide medical services (e.g., medical assessment, vaccination, source testing, baseline testing, counseling) to the exposed employee in order to decrease the risk of infection.

**Production facility:** Facility engaged in industrial scale, large volume or high concentration production of bloodborne pathogens (e.g., HIV).

**Regulated waste:** Any of the following: 1) liquid or semi-liquid blood or other potentially infectious materials (OPIM); 2) contaminated items that would release blood or OPIM in a liquid or semi-liquid state if compressed; 3) items which are caked with dry blood or OPIM and are capable of releasing these materials during handling; 4) contaminated sharps; and 5) pathological and microbiological wastes containing blood or OPIM.

**Research laboratory:** A laboratory producing or using research laboratory-scale amounts of bloodborne pathogens, but not in the volume found in production laboratories.

**Sharps:** means any contaminated object that can penetrate the skin, including any of the following: needles, scalpels, broken glass, broken capillary tubes, exposed ends of dental wires or any other material/object that could penetrate the skin.

**Sharps with Engineered Sharps Injury Protection (Safer Sharps Devices):**
A non-needle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other body fluids, with a built-in safety feature or mechanism that effectively reduces the risk of an exposure incident (e.g., syringes with a sliding sheath that shields the attached needle after use, shielded or retracting catheters used to access the bloodstream for intravenous administration medication or fluids, and intravenous medication delivery systems that administer medication or fluids through a catheter port or connector site using a needle that is housed in a protective covering).

**Source individual:** Any individual, living or dead, whose blood or other potentially infectious material may be a source of occupational exposure for an employee.

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

**Synovial fluid:** Fluid from the joints such as the elbows, knees, or shoulders.

**Universal Precautions:** A method of infection control that treats all human blood and other potentially infectious material as capable of transmitting HIV, HBV, HCV, and other bloodborne pathogens.

**Work practice controls:** Controls that reduce the likelihood of exposure to bloodborne pathogens by altering the manner in which a task is performed.

**Appendix F**

CENTRAL MICHIGAN UNIVERSITY

**HEPATITIS B VACCINATION PROGRAM**
**AUTHORIZATION TO BILL DEPARTMENT**

Department: _____

Account Number: _____

Supervisor: _____

Signature: _____

Date: _____

Address: _____

| | Print first and last name: | Campus ID Number | Job Title/Class. | Dose 1 | Dose 2 | Dose 3 | Titer |
|---|---|---|---|---|---|---|---|
| 1. | | | | | | | |
| 2. | | | | | | | |
| 3. | | | | | | | |
| 4. | | | | | | | |
| 5. | | | | | | | |
| 6. | | | | | | | |
| 7. | | | | | | | |
| 8. | | | | | | | |
| 9. | | | | | | | |
| 10. | | | | | | | |
| 11. | | | | | | | |
| 12. | | | | | | | |
| 13. | | | | | | | |
| 14. | | | | | | | |
| 15. | | | | | | | |

**AT LEAST ONE WEEK BEFORE EMPLOYEES ARE TO RECEIVE HEPATITIS B VACCINE, COMPLETE AND RETURN THIS FORM TO THE PRIMARY CARE SUITE COORDINATOR, HEALTH SERVICES, FOUST 200.**

Cc: Primary Care Suite Coordinator Health Services Business Office

**Appendix G**

Central Michigan University
Health Services

## Guidelines for Management of Bloodborne Pathogen Exposure Incidents

The physician is responsible for making the final determination of whether or not actual potential exposure to bloodborne pathogens has occurred and for initiating immunizations and/or prophylactic treatment.

The Registered Nurse in consultation and collaboration with a UHS Physician will utilize the following guidelines in managing the care of CMU students, staff and faculty who have sustained potential bloodborne pathogen exposure incidents.

### Initial evaluation

1. Initiate the evaluation as soon as possible after the exposure.
2. Clean the exposed area immediately with soap and water while encouraging bleeding.
3. Flush exposed mucosal and conjunctiva sites with large quantities of water.
4. Evaluate the wound to determine whether there was actual potential for exposure to bloodborne pathogens and document that determination on page 2 of the “exposed individual report” and on the HealthCare Professional’s written opinion form #HS 106A.
5. Complete the Exposed Individual Report
6. Unless contraindicated administer a Td or Tdap immunization if none has been given in the past 5 years.
7. Inquire whether an Accidental Personal Injury Report has been completed by the supervisor or by the Workman’s Comp office ext. 7177.
8. If the report has not been done have the patient call after treatment.
9. Determine patients Hepatitis B status.
    a. Inform patient of the possible consequences of hepatitis B infection and discuss vaccination.
    b. Document the patient decision regarding testing and immunization in the medical record.
    c. If the patient declines vaccination if indicated have him/her sign hepatitis B vaccination declination form HS238D.
10. Inform patient of possible consequences of HIV infection if indicated by exposure.
11. Discuss HIV testing with patient following CDC guidelines.

12. Follow up monitoring
    a. Schedule periodic follow up visits to monitor progress.
    b. Instruct patient to report and seek medical evaluation for any acute febrile disease that occurs within twelve weeks of exposure incident.
13. Evaluate Source patient if available by following page 4 of Exposed Individual Report.
14. Complete bloodborne Pathogen Potential Exposure Incident Follow-Up Instructions HS 107A.
15. If patient incident was related to a sharp please complete the Sharps Injury Log HS 346.

**Appendix H**

# BLOODBORNE PATHOGEN PROGRAM
# "NEAR MISS" FORM

This form is to be used any time that an exposure to bloodborne pathogens was narrowly avoided.

Date: _____

Time: _____

Location: _____

Description of the incident: _____

_____

_____

_____

What personal protective equipment was being worn? _____

_____

_____

_____

How could the incident have been avoided? _____

_____

_____

_____

_____ _____

Employee Supervisor

cc: Risk Management, Environmental Health & Safety environmental@cmich.edu

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**DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS**

**DIRECTOR'S OFFICE**

**OCCUPATIONAL HEALTH STANDARDS**

Filed with the Secretary of State on June 30, 1993 (as amended November 14, 1996)
(as amended June 28, 2001) **(as amended October 28, 2014)**

These rules become effective immediately upon filing with the Secretary of State
unless adopted under section 33, 44, or 45a(6) of 1969 PA 306.

Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the director of the department of licensing and regulatory affairs
by sections 14 and 24 of 1974 PA 154, MCL 408.1014 and 408.1024,
and Executive Reorganization Order Nos. 1996-1 and 1996-2, 2003-1, 2008-4,
and 2011-4, MCL 330.3101, 445.2001, 445.2011, 445.2025 and 445.2030)

R 325.70002, R 325.70003, R 325.70004, R 325.70007, R 325.70008, R 325.70009, R 325.70011, R 325.70013, R 325.70014, R 325.70015, R 325.70016 and R 325.70017 of the Michigan Administrative code are amended, and R 325.70001a is added, and R 325.70017 and R 325.70018 of the Code are rescinded as follows:

# GENERAL INDUSTRY SAFETY AND HEALTH STANDARD
# PART 554. BLOODBORNE INFECTIOUS DISEASES

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**R 325.70001 Scope.**

**Rule 1.** These rules apply to all employers that have employees with occupational exposure to blood and other potentially infectious material.

**R 325.70001a Referenced standards.**

**Rule 1a**. (1) The following Michigan occupational safety and health standards are referenced in these rules. Up to 5 copies of these standards may be obtained at no charge from the Michigan Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan 48909-8143, or via the internet at website: www.michigan.gov/mioshastandards. For quantities greater than 5, the cost, at the time of adoption of these rules, is 4 cents per page.

(a) Occupational Health Standard Part 470 "Employee Medical Records and Trade Secrets," R 325.3451 to R 325.3476.

(b) MIOSHA Standard Part 11. "Recording and Reporting of Occupational Injuries and Illnesses," R 408.22101 to R 408.22162.

(2) The appendices to these rules are informational only and are not intended to create any additional obligations or requirements not otherwise imposed by these rules or to detract from any established obligations or requirements.

**R 325.70002 Definitions.**

**Rule 2.** As used in these rules:

(a) "Act" means Michigan occupational safety and health act (MIOSHA), 1974 PA 154, MCL 408.1001 to 408.1094.

(b) "Biologically hazardous conditions" means equipment, containers, rooms, materials, experimental animals, animals infected with HBV or HIV virus, or combinations thereof that contain, or are contaminated with, blood or other potentially infectious material.

(c) "Blood" means human blood, human blood components, and products made from human blood.

(d) "Bloodborne pathogens" means pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

(e) "Clinical laboratory" means a workplace where diagnostic or other screening procedures are performed on blood or other potentially infectious material.

(f) "Contaminated" means the presence or the reasonably anticipated presence of blood or other potentially infectious material on an item or surface.

(g) "Contaminated laundry" means laundry that has been soiled with blood or other potentially infectious materials or that may contain sharps.

(h) "Contaminated sharps" means any contaminated object that can penetrate the skin, including any of the following:

(i) Needles.

(ii) Scalpels.

(iii) Broken glass.

(iv) Broken capillary tubes.

(v) Exposed ends of dental wires.

(i) "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.

(j) "Department" means the department of licensing and regulatory affairs.

(k) "Director" means the director of the department or his or her designee.

(l) "Disinfect" means to inactivate virtually all recognized pathogenic microorganisms, but not necessarily all microbial forms, on inanimate objects.

(m) "Engineering controls" means controls, for example, sharps disposal containers, self-sheathing needles, or safer medical devices, such as sharps with engineered sharps injury protections and needleless systems, that isolate or remove the bloodborne pathogen hazard from the workplace.

(n) "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. "Exposure" does not include incidental exposures that may take place on the job, that are neither reasonably nor routinely expected, and that the worker is not required to incur in the normal course of employment.

(o) "Exposure incident" means a specific eye, mouth, other mucous membrane, nonintact skin, or parenteral contact with blood or other potentially infectious material that results from the performance of an employee's duties.

(p) "Handwashing facilities" means facilities that provide an adequate supply of running, potable water, soap, and single-use towels or an air drying machine.

(q) "Licensed health care professional" means a person whose legally permitted scope of practice allows him or her to independently perform the activities required by R 325.70013 concerning hepatitis B vaccination and post-exposure evaluation and follow-up.

(r) "Needleless systems" means a device that does not use needles for any of the following:

(i) The collection of bodily fluids or withdrawal of body fluids after initial venous or arterial access is established.

(ii) The administration of medication or fluids.

(iii) Any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps.

(s) "Other potentially infectious material" means any of the following:

(i) Any of the following human body fluids:

(A) Semen.

(B) Vaginal secretions.

(C) Amniotic fluid.

(D) Cerebrospinal fluid.

(E) Peritoneal fluid.

(F) Pleural fluid.

(G) Pericardial fluid.

(H) Synovial fluid.

(I) Saliva in dental procedures.

(J) Any body fluid that is visibly contaminated with blood.

(K) All body fluids in situations where it is difficult or impossible to differentiate between body fluids.

(ii) Any unfixed tissue or organ, other than intact skin, from a living or dead human.

(iii) Cell or tissue cultures that contain HIV, organ cultures, and culture medium or other solutions that contain HIV or HBV; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

(t) “Parenteral” means exposure occurring as a result of piercing mucous membrane or the skin barrier, such as exposure through subcutaneous, intramuscular, intravenous, or arterial routes resulting from needlesticks, human bites, cuts, and abrasions.

(u) “Personal protective equipment” or “PPE” means specialized clothing or equipment that is worn by an employee to protect him or her from a hazard. General work clothes, such as uniforms, pants, shirts, or blouses, that are not intended to function as protection against a hazard are not considered to be personal protective equipment.

(v) “Production facility” means a facility that is engaged in the industrial-scale, large-volume production of HIV or HBV or in the high-concentration production of HIV or HBV.

(w) “Regulated waste” means any of the following:

(i) Liquid or semiliquid blood or other potentially infectious material.

(ii) Contaminated items that would release blood or other potentially infectious material in a liquid or semiliquid state if compressed.

(iii) Items that are caked with dried blood or other potentially infectious material and that are capable of releasing these materials during handling.

(iv) Contaminated sharps.

(v) Pathological and microbiological waste that contains blood and other potentially infectious material.

(x) “Research laboratory” means a laboratory that produces or uses research laboratory-scale amounts of HIV or HBV. A research laboratory may produce high concentrations of HIV or HBV, but not in the volume found in a production facility.

(y) “Sharps with engineered sharps injury protections” means a nonneedle sharp or a needle device that is used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, and that has a build-in safety feature or mechanism that effectively reduces the risk of an exposure incident.

(z) “Source individual” means any living or dead individual whose blood or other potentially infectious material may be a source of occupational exposure to an employee. Examples of a source individual include all of the following:

(i) A patient of a hospital or clinic.

(ii) A client of an institution for the developmentally disabled.

(iii) A victim of trauma.

(iv) A client of a drug or alcohol treatment facility.

(v) A resident of a hospice or nursing home.

(vi) Human remains.

(vii) An individual who donates or sells his or her blood or blood components.

(aa) “Standard operating procedures (SOPs)” means any of the following that address the performance of work activities so as to reduce the risk of exposure to blood and other potentially infectious material:

(i) Written policies.

(ii) Written procedures.

(iii) Written directives.

(iv) Written standards of practice.

(v) Written protocols.

(vi) Written systems of practice.

(vii) Elements of an infection control program.

(bb) “Sterilize” means the use of a physical or chemical procedure to destroy all microbial life, including highly resistant bacterial endospores.

(cc) “Universal precautions” means a method of infection control that treats all human blood and other potentially infectious material as capable of transmitting HIV, HBV, and other bloodborne pathogens.

(dd) “Work practices” means controls that reduce the likelihood of exposure to bloodborne pathogens by altering the manner in which a task is performed.

**R 325.70003 Exposure determination.**

**Rule 3.** (1) An employer shall evaluate routine and reasonably anticipated tasks and procedures to determine whether there is actual or reasonably anticipated employee exposure to blood or other potentially infectious material. Based on this evaluation, an employer shall categorize all employees into category A or B as follows:

(a) Category A consists of occupations that require procedures or other occupation-related tasks that involve exposure or reasonably anticipated exposure to blood or other potentially infectious material or that involve a likelihood for spills or splashes of blood or other potentially infectious material. This includes procedures or tasks conducted in nonroutine situations as a condition of employment.

(b) Category B consists of occupations that do not require tasks that involve exposure to blood or other potentially infectious material on a routine or nonroutine basis as a condition of employment. Employees in occupations in this category do not perform or assist in emergency medical care or first aid and are not reasonably anticipated to be exposed in any other way.

(2) An exposure determination shall be made without regard to the use of personal protective clothing and equipment.

(3) An employer shall maintain a list of all job classifications that are determined to be category A.

**R 325.70004 Exposure control plan.**

**Rule 4**. (a) If an employee is determined to be in category A, then an employer shall establish a written exposure control plan to minimize or eliminate employee exposure.

(b) An exposure control plan shall contain all of the following information:

(i) The exposure determination required by R 325.70003(1).

(ii) The schedule and method of implementation for each applicable rule.

(iii) The contents or a summary of the training program required by R 325.70016.

(iv) The procedures for the evaluation of circumstances surrounding exposure incidents as required by R 325.70013(5).

(v) Task-specific standard operating procedures (SOPs) that address all of the following areas:

(A) Employee recognition of reasonably anticipated exposure to blood and other potentially infectious material.

(B) Appropriate selection, use, maintenance, and disposal of personal protective equipment.

(C) Contingency plans for foreseeable circumstances that prevent following the recommended SOPs.

(c) General employer policies or task-specific SOPs shall address the management of inadvertent exposures such as needlesticks or mucus membrane exposures.

(d) The exposure control plan shall be reviewed at least annually and updated as necessary. A review shall consider changes in employees' tasks and procedures and the latest information from the centers for disease control or the department. See appendix A for addresses of these agencies. The review and update of the exposure control plans shall comply with both of the following provisions:

(i) Reflect changes in technology that eliminate or reduce exposure to bloodborne pathogens.

(ii) Document annually consideration and implementation of appropriate commercially available and effective safer medical devices designed to eliminate or minimize occupational exposure.

(e) An employer shall ensure that only a person who has knowledge of applicable control practices is authorized to write and to review an exposure control plan.

(f) An employer shall ensure that the exposure control plan is made available to the director or a representative of the director for examination and copying upon request.

(g) An employer shall ensure that a copy of the exposure control plan is accessible to category A employees in accordance with Occupational Health Standard Part 470 “Employee Medical Records and Trade Secrets,” as referenced in R 325.70001a.

(h) An employer who is required to establish an exposure control plan shall solicit input from non-managerial employees responsible for direct patient care who are potentially exposed to injuries from contaminated sharps in the identification, evaluation, and selection of effective engineering and work practice controls and shall document the solicitation in the exposure control plan.

**R 325.70005 Universal precautions.**

**Rule 5.** Universal precautions shall be observed to prevent contact with blood and other potentially infectious materials. If differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious materials.

**R 325.70006 Engineering controls.**

**Rule 6.** (1) Engineering controls shall be used in combination with work practice controls to minimize or eliminate employee exposure to blood and other potentially infectious material. Where exposure remains after use of engineering and work practice controls, personal protective equipment shall also be used.

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

(3) An employer shall provide hand-washing facilities which are readily accessible to employees. When provision of hand-washing facilities is not feasible, an employer shall provide an appropriate antiseptic hand cleanser with clean cloth or paper towels or antiseptic towelettes.

**R 325.70007 Work practices.**

**Rule 7.** At a minimum, work practices shall ensure all of the following:

(a) All personal protective equipment shall be removed before leaving the work area and shall be placed in an appropriately designated area or container for storage, washing, decontamination, or disposal.

(b) If a garment is penetrated by blood or other potentially infectious materials, the garment shall be removed immediately or as soon as feasible.

(c) Employers shall provide handwashing facilities that are readily accessible to employees. When provision of handwashing facilities is not feasible, the employer shall provide either an appropriate antiseptic hand cleanser in conjunction with clean cloth/paper towels or antiseptic towelettes. When antiseptic hand cleansers or towelettes are used, employees shall wash hands with soap and running water as soon as feasible.

(d) Employers shall ensure that employees wash their hands immediately or as soon as feasible after removal of gloves or other personal protective equipment.

(e) Employers shall ensure that employees wash 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.

(f) Used needles and other contaminated sharps shall not be sheared, bent, or broken and shall not be recapped or resheathed where other disposal methods are practical. Used needles and other sharps shall not be recapped, resheathed, or removed unless the employer can demonstrate that no alternative is feasible or that such action is required by a specific medical procedure. Needle recapping or removal shall be accomplished by use of a mechanical device or a 1-handed technique. The disposal of needles and sharps shall be accomplished in accordance with the provisions of R 325.70010.

(g) Eating, drinking, smoking, applying cosmetics or lip balm, or handling contact lenses is prohibited in laboratories and other work areas where there is a reasonable likelihood of exposure.

(h) Food and drink shall not be stored in refrigerators, freezers, shelves, cabinets, or on countertops or benchtops where blood or other potentially infectious material is present or in other areas of possible contamination.

(i) All procedures that involve blood or other potentially infectious material shall be performed in a manner that minimizes splashing, spraying, and aerosolization of blood or other potentially infectious material.

(j) Mouth pipetting or suctioning is prohibited.

**R 325.70008 Protective work clothing and equipment.**

**Rule 8.** An employer shall provide protective work clothing and equipment used in the following:

(a) When there is occupational exposure, an employer shall provide, at no cost to the employee, and assure that an employee uses, appropriate personal protective clothing and equipment, such as any of the following:

(i) Gloves.
(ii) Gowns.
(iii) Fluid-proof aprons.
(iv) Laboratory coats.
(v) Head and foot coverings.
(vi) Faceshields or mask and eye protection.
(vii) Mouthpieces.
(viii) Resuscitation bags.
(ix) Pocket masks.
(x) Other ventilation devices.

Personal protective equipment is appropriate only if it does not permit blood or other potentially infectious material 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 that the protective equipment is used.

(b) An employer shall ensure that an employee uses appropriate personal protective equipment unless the employer shows that the employee temporarily and briefly declined to use PPE when, under rare and extraordinary circumstances, it was the employee's professional judgment that in the specific instance the use of PPE 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 coworker. When the employee makes this judgment, the circumstances shall be investigated and documented to determine if changes can be made to prevent future occurrences.

(c) An employer shall assure that appropriate protective equipment and clothing in the appropriate sizes are readily accessible at the worksite or issued to employees at no cost to the employees. Hypoallergenic gloves, glove liners, powderless gloves, or other similar alternatives shall be readily accessible to employees who are allergic to the gloves normally provided. See appendix A for more information.

(d) An employer shall provide for the cleaning, laundering, or disposing of protective clothing and equipment required by this rule.

(e) An employer shall repair or replace required protective clothing and equipment as needed to maintain their effectiveness.

(f) An employee shall wear gloves if there is a reasonable anticipation of direct skin contact with blood, other potentially infectious material, mucous membranes, or nonintact skin of patients; when performing vascular access procedures, except as specified in subdivision (g) of this subrule; and when handling items or surfaces that are soiled with blood or other potentially infectious material.

Disposable (single-use) gloves, such as surgical or examination gloves, shall be replaced a soon as practical if contaminated or as soon as feasible if torn, punctured, or ineffective as barriers. Disposable gloves shall not be washed or decontaminated for reuse. Utility gloves shall be discarded if any are cracked, peeling, discolored, torn, or punctured or exhibit other signs of deterioration, but may be decontaminated for reuse if the integrity of the glove is maintained.

(g) If an employer of a volunteer blood donation center judges that routine gloving for all phlebotomies is not necessary, the employer shall do all of the following:

(i) Periodically reevaluate this policy.

(ii) Make appropriate gloves available to all employees who wish to use them for phlebotomy.

(iii) Not discourage the use of gloves for phlebotomy.

(iv) Require that gloves be used for phlebotomy in the following circumstances:

(A) When the employee has cuts, scratches, or other breaks in the skin on his or her hands or wrists.

(B) When the employee judges that hand contamination with blood may occur, for example, when performing phlebotomy on an uncooperative patient.

(C) When the employee is receiving training in phlebotomy.

(h) Employees shall wear masks and eye protection or chin-length face shields as appropriate if splashes, sprays, spatters, droplets, or aerosols of blood or other potentially infectious material may be generated and if there is a likelihood for eye, nose, or mouth contamination.

(i) Employees shall wear gowns, lab coats, aprons, clinic jackets, or similar outer garments where appropriate if there is a reasonably anticipated exposure. Such clothing shall protect all areas of exposed skin that have a significant likelihood for contamination. The type of characteristics will depend upon the task and degree of exposure anticipated.

(j) Employees shall wear surgical caps or hoods and shoe covers or boots where appropriate if there is a reasonable anticipation of gross contamination, for example, in autopsies and orthopedic surgery.

**R 325.70009 Housekeeping.**

**Rule 9**. (1) An employer shall assure that the worksite is maintained in a clean and sanitary condition. An employer shall determine and implement an appropriate written schedule for cleaning and for the method of decontamination based on all of the following:

(a) The location within a facility.

(b) The type of surface to be cleaned.

(c) The type of soil present.

(d) The tasks or procedures being performed.

(2) All equipment and environmental and working surfaces shall be maintained in a sanitary condition as follows:

(a) Work surfaces shall be cleaned and appropriately decontaminated with an appropriate disinfectant in all of the following instances:

(i) After completion of procedures.

(ii) When surfaces are overtly contaminated.

(iii) Immediately when blood or other potentially infectious material is spilled.

(iv) At the end of the work shift if the surface may have become contaminated since the last cleaning. See appendix A for supplemental information.

(b) Protective coverings such as plastic wrap, aluminum foil, or plastic-backed, absorbent paper may be used to cover equipment and environmental surfaces. These coverings shall be removed and replaced at the end of the work shift if contaminated or as soon as feasible when they become overly contaminated.

(c) Equipment that may become contaminated with blood or other potentially infectious material shall be examined before servicing or shipping and shall be decontaminated as necessary unless the employer can demonstrate that decontamination is not feasible. If decontamination is not feasible, the employer shall ensure that a readily observable label which states the portions of the equipment that remain contaminated and that is in compliance with R 325.70014(2)(h) is attached to the equipment. The employer shall ensure that all affected employees, the servicing representative, or the manufacturer, as appropriate, is notified that equipment decontamination is not feasible and is notified of the portions of the equipment that remain contaminated before handling, servicing, or shipping so that appropriate precautions will be taken.

(d) All bins, pails, cans, and similar receptacles that are intended for reuse and that have a reasonable likelihood for becoming contaminated with blood and other potentially infectious material shall be inspected and decontaminated on a regularly scheduled basis and shall be cleaned and decontaminated immediately, or as soon as possible, upon visible contamination.

(e) Broken glassware that 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 dust pan, tongs, cotton swabs, or forceps.

(f) Specimens of blood or other potentially infectious material shall be placed in a closable leakproof container during collection, handling, processing, storing, transporting, or shipping. If contamination of the outside of a primary container is likely, a second leakproof container shall be placed over the outside of the first and closed to prevent leakage during handling, processing, storing, transporting, or shipping. If puncture of the primary container is likely, then the primary container shall be placed within a leakproof, puncture-resistant secondary container. All containers shall be labeled or color-coded in accordance of R 325.70014.

(g) 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.

**R 325.70010 Regulated waste disposal.**

**Rule 10.** (1) All regulated waste that is being disposed of shall be placed in closable, leakproof containers or bags that are color-coded or labeled as required by the provisions of R 325.70014. If outside contamination of the container or bag is likely to occur, then a second leakproof container or bag that is closable and labeled or color-coded shall be placed over the outside of the first and closed to prevent leakage during handling, storage, and transport.

(2) Immediately after use, contaminated sharps shall be disposed of in closable, leakproof, puncture-resistant, disposable containers that are labeled or color-coded according to the provisions of R 325.70014. These containers shall be easily accessible to personnel; shall be located in the immediate area of use or where sharps are likely to be found, unless needles are mechanically recapped and transported through nonpublic corridors to the container; and shall be replaced routinely and not allowed to overfill.

(3) The disposal of all medical waste shall be in compliance with the provisions of sections 13801 to 13831 of Act No. 368 of the Public Acts of 1978, as amended, being §§333.13801 to 333.13831 of the Michigan Compiled Laws, and known as the medical waste regulatory act.

**R 325.70011 Laundry.**

**Rule 11**. (1) Laundry that is or may be soiled with blood or other potentially infectious material or that may contain contaminated sharps shall be treated as if it were contaminated and shall be handled as little as possible with a minimum of agitation.

(2) Contaminated laundry shall be bagged at the location where it was used and shall not be sorted or rinsed in areas where patients are cared for.

(3) Contaminated laundry shall be placed and transported in bags or containers labeled or color-coded in accordance with R 325.70014. If laundry is wet and presents the likelihood for soaking through or leaking from the bag, it shall be placed and transported in leakproof bags.

(4) An employer shall ensure that laundry workers wear protective gloves and other appropriate personal protective work clothing while handling contaminated laundry.

(5) When an employer follows universal precautions in the handling of all soiled laundry, alternative labeling or color coding is sufficient if it permits all employees to recognize the containers that are required to be in compliance with universal precautions.

(6) When an employer ships contaminated laundry off-site to a facility that does not use universal precautions in the handling of all laundry, the shipping employer shall use bags or containers that are labeled or color-coded in accordance with R 325.70014.

**R 325.70012 HIV and HBV research laboratories and production facilities.**

**Rule 12.** (1) This rule applies to research laboratories and production facilities that are engaged in the culture, production, concentration, experimentation, and manipulation of HIV and HBV. This rule applies to such laboratories and facilities in addition to the other requirements of these rules. This rule does not apply to clinical or diagnostic laboratories that are engaged solely in the analysis of blood, tissues, or organs.

(2) Research laboratories and production facilities shall be in compliance with all of the following requirements:

(a) All infectious liquid or solid waste shall be incinerated or decontaminated by a method known to effectively destroy bloodborne pathogens before being disposed of.

(b) Laboratory doors shall be kept closed when work involving HIV or HBV is in progress.

(c) Contaminated materials that are to be decontaminated at a site away from the work area shall be placed in a durable, leakproof, labeled or color-coded container that is closed before being removed from the work area.

(d) Access to the work area shall be limited to authorized persons only. Written policies and procedures shall be established whereby only persons who have been advised of the biohazard, who meet any specific entry requirements, and who comply with all entry and exit procedures shall be allowed to enter the work areas and animal rooms.

(e) When other potentially infectious material or infected animals are present in the work area or containment module, a hazard warning sign that incorporates the universal biohazard symbol shall be posted on all access doors. The hazard warning sign shall be in compliance with the provisions of R 325.70014(1).

(f) All activities that involve other potentially infectious material shall be conducted in biological safety cabinets or other physical containment devices within the containment module. Work with such material shall not be conducted on the open bench.

(g) Laboratory coats, gowns, smocks, uniforms, or other appropriate protective clothing shall be used in the work area and animal rooms. Protective clothing shall not be worn outside of the work area and shall be decontaminated before being laundered.

(h) Special care shall be taken to avoid skin contamination with other potentially infectious materials. Gloves shall be worn when handling infected animals and when making contact with other potentially infectious materials is unavoidable.

(i) All waste from work areas, including animal rooms, shall be incinerated or decontaminated by a method known to effectively destroy bloodborne pathogens before disposal.

(j) Vacuum lines shall be protected with high-efficiency particulate air (HEPA) filters, or equivalent filters, and liquid disinfectant traps. Filters and traps shall be checked routinely and maintained or replaced as necessary.

(k) Hypodermic needles, syringes, and other sharp instruments shall be used only when a safer alternate technique is not feasible. Only needle-locking syringes or disposable syringe with needle units that have a needle as an integral part of the syringe shall be used for the injection or aspiration of other potentially infectious material. Extreme caution shall be used when handling needles and syringes to avoid autoinoculation and the generation of aerosols during use and disposal. A needle shall not be bent, sheared, replaced in the sheath or guard, or removed from the syringe after being used. The needle and syringe shall be promptly placed in a puncture-resistant container and decontaminated, preferably by autoclaving, before being discarded or reused.

(l) A spill or accident that results in an exposure incident shall be immediately reported to the laboratory director or another responsible person. Spills shall immediately be contained and cleaned up by appropriate professional staff who are trained and equipped to work with potentially concentrated infectious material.

(m) A biosafety manual shall be prepared or adopted and reviewed and updated at least annually. Personnel shall be advised of potential hazards and shall be required to read and follow instructions on practices and procedures.

(n) Both of the following containment equipment requirements shall be complied with:

(i) Class I, II, or III certified biological safety cabinets or other appropriate combinations of personal protection or physical containment devices, such as any of the following, shall be used for all activities with other potentially infectious material that poses a threat of exposure to droplets, splashes, spills, or aerosols:

(A) Special protective clothing.

(B) Respirators.

(C) Centrifuge safety cups.

(D) Sealed centrifuge rotors.

(E) Containment caging for animals.

(ii) Biological safety cabinets shall be certified when installed, at least annually, and when they are relocated.

(3) HIV and HBV research laboratories shall be in compliance with both of the following requirements:

(a) Each laboratory shall contain a sink for washing hands and an eye wash station that are readily available in the work area.

(b) An autoclave for the decontamination of regulated wastes shall be available.

(4) HIV and HBV production facilities shall be in compliance with all of the following requirements:

(a) The work areas shall be separated from areas that are open to an unrestricted traffic flow within the building. Passage through 2 sets of doors shall be the basic requirement for entry into the 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-doored room for changing clothes, an airlock, or other access facility that requires passing through 2 sets of doors before entering the work area. Showers may be included as part of the changing room.

(b) The interior surfaces of walls, floors, and ceilings shall be water-resistant so that they can be easily cleaned. Penetrations in these surfaces shall be sealed or capable of being sealed to facilitate decontamination of the work area.

(c) Each work area shall contain a sink for washing hands. The sink shall be foot-operated, elbow operated, or automatically operated and shall be located near the exit door of the work area.

(d) Access doors to the work area or containment module shall be self-closing.

(e) An autoclave for the decontamination of infectious wastes shall be available within, or as near as possible to, the work area.

(f) A ducted exhaust air ventilation system shall be provided. This system shall create directional airflow that draws air into the work area through the entry area. The exhaust air shall not be recirculated to any other area of the building, shall be discharged to the outside, and shall be dispersed away from occupied areas and air intakes. The proper direction of the airflow into the work area shall be verified.

(5) Additional training requirements for employees in HIV and HBV research laboratories and HIV and HBV production facilities are specified in R 325.70016(6).

**R 325.70013 Vaccinations and postexposure follow-up.**

**Rule 13.** (1) An employer shall assure that all medical evaluations are procedures that are performed by or under the supervision of a licensed physician or other licensed health care professional and that all laboratory tests are conducted by an accredited laboratory.

(2) An employer shall assure that all evaluations, procedures, vaccinations, and postexposure prophylaxes are provided without cost to the employee, at a reasonable time and place, and according to current recommendations of the United States public health service, unless in conflict with this rule.

(3) An employer shall assure that all employees will receive appropriate counseling with regard to medical risks and benefits before undergoing any evaluations, procedures, vaccinations, or postexposure prophylaxes.

(4) Within 10 working days of the time of initial assignment and after the employee has received training required by R 325.70016(5)(i), an employer shall make all of the following available to each category A employee:

(a) A hepatitis B vaccination. If an employee initially declines vaccination, but at a later date, while still covered under these rules, decides to accept the HBV vaccine, the employer shall provide the vaccine at that time. If a booster dose or doses are recommended by the United States public health service at a future date, the booster dose or doses shall be made available.

(b) If an employee has previously received the complete HBV vaccination series, is found to be immune to HBV by virtue of adequate antibody titer, or the vaccine is contraindicated for medical reasons, then the employer is not required to offer the HBV vaccine to that employee.

(c) An employer shall not make participation in a prescreening program a prerequisite for receiving hepatitis B vaccination.

(d) An employer shall assure that an employee who declines to accept hepatitis B vaccination signs a waiver statement with all of the following provisions:

(i) Understanding of risk.

(ii) Acknowledgment of opportunity of vaccination at no cost.

(iii) Declining vaccination.

(iv) Future availability of vaccination at no cost if desired, if still in at-risk status. See appendix B for a sample of an acceptable waiver statement.

(5) An employer shall provide each exposed employee with an opportunity to have a confidential medical evaluation and follow-up subsequent to a reported occupational exposure incident to blood or other potentially infectious material. The evaluation and follow-up shall include, at a minimum, all of the following elements:

(a) Documentation of the route or routes of exposure and the circumstances under which the exposure incident occurred.

(b) Identification and documentation of the source individual, unless the employer can establish that identification is infeasible or prohibited by state or local law, shall include all of the following:

(i) The source individual's blood shall be tested as soon as feasible and after consent is obtained to determine HBV and HIV infectivity. If consent is not obtained, the employer shall establish that legally required consent cannot be obtained. If the source individual's consent is not required by law, his or her blood, if available, shall be tested and the results documented.

(ii) If the source individual is already known to be infected with HBV or HIV, testing need not be repeated.

(iii) Results of the source individual's testing shall be made available 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.

(c) Collection and testing of blood or HBV and HIV serological status shall include both of the following:

(i) The exposed employee's blood shall be collected as soon as feasible and tested after consent is obtained.

(ii) If the exposed employee consents to baseline blood collection, but not to HIV testing at that time, the sample shall be preserved for not less than 90 days. If within the 90 days the employee elects to have the baseline sample tested, such testing shall be done as soon as feasible.

(d) Postexposure prophylaxis, when medically indicated, as recommended by the United States public health service.

(e) Counseling on risk reduction and the risks and benefits of HIV testing in accordance with state law.

(f) Evaluation of reported illnesses.

(6) An employer shall ensure that the health care professional who is responsible for the hepatitis B Vaccination is provided with a copy of these rules and appendices. An employer shall ensure that the health care professional who evaluates an employee after an exposure incident is provided with all of the following information:

(a) A description of the affected employee's duties as they relate to the employee's exposure incident.

(b) Documentation of the route or routes of exposure and the circumstances under which exposure occurred.

(c) Results of the source individual's blood testing, if available.

(d) All medical records that are relevant to the appropriate treatment of the employee, including vaccination status, and that are the employer's responsibility to maintain.

(7) For each evaluation pursuant to the provisions of this rule, an employer shall obtain, and provide an employee with a copy of, the evaluating health care professional's written opinion within 15 working days of the completion of the evaluation. The written opinion shall be limited to the following information:

(a) Whether hepatitis B vaccination is indicated for an employee and if the employee has received such vaccination.

(b) A statement that the employee has been informed of the results of the medical evaluation and that the employee has been told about any medical conditions that have resulted from exposure to blood or other potentially infectious material and that require further evaluation or treatment. The written opinion obtained by the employer shall not reveal specific findings or diagnoses that are unrelated to the employee's ability to wear protective clothing and equipment or receive vaccinations. Such findings and diagnoses shall remain confidential.

(8) Medical records that are required by these rules shall be maintained in accordance with R 325.70015.

**R 325.70014 Communication of hazards to employees.**

**Rule 14.** (1) An employer shall post signs at the entrance to work areas specified in R 325.70012. The signs shall bear the following legend:


[Name of infectious agent]
[Special requirements for entering the area]
[Name and telephone number of the laboratory director or other responsible person]

These signs shall be fluorescent orange-red with lettering and symbols in a contrasting color.

(2) Labels shall be in compliance with all of the following requirements:

(a) Warning labels shall be affixed to containers of regulated waste, refrigerators and freezers that contain blood or other potentially infectious material, and other containers that are used to store or transport blood or other potentially infectious material, except as provided in subdivision (e) or (f) of this subrule.

(b) Labels that are required pursuant to this rule shall include the follow legend:

(c) Labels shall be fluorescent orange or orange-red or predominately orange or orange-red, with lettering or symbols in a contrasting color.

(d) Labels shall either be an integral part of the container or shall be affixed as close as safely possible to the container by string, wire, or adhesive or by another method that prevents the loss of labels or the unintentional removal of labels.

(e) Red bags or red containers may be substituted for labels.

(f) Containers of blood, blood components, or blood products that are labeled as to their contents and that have been released for transfusion or other clinical use are exempted from the labeling requirements of this rule.

(g) Individual containers of blood or other potentially infectious materials that are placed in a labeled container during storage, transport, shipment, or disposal are exempted from labeling requirements.

(h) Labels required for contaminated equipment shall be in accordance this subrule and shall also describe which portions of the equipment remain contaminated.

(i) Regulated waste that has been decontaminated need not be labeled or color-coded.

**R 325.70015 Recordkeeping.**

**Rule 15. (1)** An employer shall establish and maintain medical records for each category A employee in accordance with Occupational Health Standard Part 470 "Employee Medical Records and Trade Secrets," as referenced in R 325.70001a.

(2) An employer shall ensure that medical records contain, at a minimum, all of the following information:

(a) The name and social security number of the employee.

(b) A copy of the employee's hepatitis B vaccination status, including the dates administered and medical records relating to the employee's ability to receive a vaccination as required by R 325.70013.

(c) A copy of all results of examinations, medical testing, and follow-up procedures as required by R 325.70013.

(d) The employer's copy of the physician's written opinion.

(e) A copy of the information provided to the physician as required by R 325.70013(6).

(3) An employer shall assure that employee medical records that are required by this rule are kept confidential and are not disclosed or reported without the employee's express written consent to any person within or outside the workplace, except as required by this rule or as may be required or permitted by law.

(4) An employer shall maintain employee medical records for not less than the duration of employment plus 30 years in accordance with Occupational Health Standard Part 470 "Employee Medical Records and Trade Secrets," as referenced in R 325.70001a.

(5) An employer shall develop and maintain training records for each category A employee. Training records shall be maintained for 3 years beyond the date that the training occurred.

(6) Training records shall include all of the following information:

(a) The dates of the training sessions.

(b) The contents or a summary of the training sessions.

(c) The names and qualifications of persons who conduct the training.

(d) The names and job titles of all persons who attend the training sessions.

(7) An employer shall assure that all records that are required to be maintained by these rules shall be made available, upon request, to representatives of the department or the director for examination and copying.

(8) An employer shall ensure that employee training records are provided, upon request, for examination and copying to employees, employee representatives, and the director in accordance with Occupational Health Standard Part 470 "Employee Medical Records and Trade Secrets," as referenced in R 325.70001a.

(9) An employer shall ensure that employee medical records are provided, upon request, for examination and copying to the subject employee, to anyone who has the written consent of the subject employee, and to the director in accordance with Occupational Health Standard Part 470 "Employee Medical Records and Trade Secrets," as referenced in R 325.70001a.

(10) An employer shall comply with the requirements that involve the transfer of records in Occupational Health Standard Part 470 "Employee Medical Records and Trade Secrets," as referenced in R 325.70001a.

(11) All of the following provisions apply to a sharps injury log:

(a) An employer 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 a manner that protects the confidentiality of the injured employee. At a minimum, a sharps injury log shall contain all of the following information:

(i) The type and brand of device involved in the incident.

(ii) The work unit or work area where the exposure incident occurred.

(iii) An explanation of how the incident occurred.

(b) The requirement to establish and maintain a sharps injury log applies to any employer who is required to maintain a log of occupational injuries and illnesses as prescribed in MIOSHA Standard Part 11. "Recording and Reporting of Occupational Injuries and Illnesses," as referenced in R 325.70001a.

(c) A sharps injury log shall be maintained for the period required as prescribed in MIOSHA Standard Part 11. "Recording and Reporting of Occupational Injuries and Illnesses," as referenced in R 325.70001a.

**R 325.70016 Information and training.**

**Rule 16**. (1) An employer shall ensure that all category A employees participate in a training program provided at no cost to the employees and during working hours.

(2) Training shall be provided at the time of initial assignment to category A work or within 90 days after the effective date of these rules, whichever is later, and at least annually thereafter. If an employee has received training on bloodborne pathogens in the year preceding the effective date of these rules, only training with respect to requirements of this rule that were not included in the previous training need to be provided.

(3) An employer shall provide additional training when changes, such as the modification of tasks or procedures or the institution of new tasks or procedures, affect an employee's occupational exposure. The additional training may be limited to addressing the new exposures created.

(4) Material appropriate in content and vocabulary to the educational level, literacy, and language background of employees shall be used.

(5) The training program shall contain all of the following elements:

(a) Accessibility of the copy of these rules and an explanation of the contents of these rules, including appendices.

(b) A general explanation of the epidemiology and symptoms of bloodborne diseases.

(c) An explanation of the modes of transmission of bloodborne pathogens.

(d) An explanation of the employer's exposure control plan, including the standard operating procedures, and how an employee can access the written plan.

(e) An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious material.

(f) An explanation of the use and limitations of practices that will prevent or reduce exposure, including appropriate engineering controls, work practices, and personal protective equipment.

(g) Information on all of the following with respect to personal protective clothing and equipment:

(i) Types.
(ii) Proper use.
(iii) Limitations.
(iv) Location.
(v) Removal.
(vi) Handling.
(vii) Decontamination.
(viii) Disposal.

(h) An explanation of the basis for selecting protective clothing and equipment.

(i) Information on the hepatitis B vaccine and postexposure prophylaxis, including all of the following information:

(i) Availability.
(ii) Efficacy.
(iii) Safety.
(iv) The benefits of being vaccinated.
(v) Method of administration.
(vi) That vaccination is free of charge.

(j) Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious material.

(k) An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident, and the medical follow-up and counseling that will be made available.

(l) An explanation of the signs and labels or color coding required by R 325.70014.

(6) Employees in HIV or HBV research laboratories and HIV/HBV production facilities shall receive the following initial training in addition to the training requirements specified in subrule (5) of this rule:

(a) Employees shall be trained in, and 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 and HBV.

(b) Employees shall be experienced in the handling of human pathogens or tissue cultures before working with HIV and HBV.

(c) A training program shall be provided to employees who have not had experience in handling human pathogens. 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. An employee shall participate in work activities that involve infectious agents only after proficiency has been demonstrated.

(7) Training shall be conducted in the following manner:

(a) At the time of initial assignment to tasks where occupational exposure may take place and at least annually thereafter.

(b) Training sessions shall afford employees ample opportunity for discussion and the answering of questions by a knowledgeable trainer.

(c) The person conducting the training shall be knowledgeable in the subject matter covered by the elements contained in the training program as it relates to the workplace that the training will address.

R 325.70017 Rescinded.

R 325.70018 Rescinded.

**APPENDIX A**
**INFORMATION SHEET**

**Occupations with Potential for Exposure**

The hazard of exposure to infectious materials affects employees in many types of employment and is not restricted to the healthcare industry. In the list below are a number of job classifications that may be associated with tasks that have occupational exposure to blood and other potentially infectious materials. The scope of the standard is not limited to employees in these jobs. At the same time, employees in the following jobs are not automatically covered unless they have reasonably anticipated occupational exposure:

Barbers
Beauticians
Chiropractors
Correctional officers
Day care center workers
Dental care workers
Dentists
Dialysis personnel
Emergency medical technicians
Fire fighters
Foster home workers
Health care facility support staff
Housekeepers
Institutional home workers
Janitors
Laboratory workers
Laundry workers
Law enforcement employees assigned to provide emergency first aid
Maintenance workers
Medical assistants
Medical health residential workers
Morticians
Nursing personnel (professional and nonprofessional)
Optometrists
Paramedics
Phlebotomists
Physician assistants
Physicians
Plumbers
Podiatrists
Police officers
Tattooists

**Addresses**

Centers for Disease Control CDC and Michigan Department of Licensing and Regulatory Affairs

For current guidelines, contact:

National Prevention Information Network
P.O. Box 6003
Rockville, Maryland 20850
Phone: 1-800-458-5231
Internet Address: https://npin.cdc.gov
E-mail Address: NPIN-Info@cdc.gov

and

Michigan Department of Licensing and Regulatory Affairs
General Industry Safety & Health Division
P.O. Box 30644
Lansing, Michigan 48909-8144
Phone: (517) 284-7750
Internet Address: www.michigan.gov/miosha

**Engineering Controls**

Engineering controls including ventilation systems and enclosures such as glove boxes, ventilation cabinets, laboratory hoods and tight fitting lids SHOULD be used to effectively isolate and contain spatters, splashes, mists and aerosols of blood, and other potentially infectious material generated from tissue homogenizers, sonicators, vortex mixers, centrifuges and other items capable of generating splashes, spatters, mists and aerosols. Engineering controls such as self-retracting needles, self-sealing capillary tubes and break resistant tubes should be used to prevent contact with blood or other potentially infectious material.

**Disinfectants**

Appropriate disinfectants for hospital cleaning including sodium hypochlorite diluted between 1:10 and 1:100 with water or other equally effective disinfectant. Antiseptics available and safe for hands include alcoholic foam cleansers, disposable alcoholic tissue wipes, or even washcloths soaked with 70-90% alcohol. It should be noted that waterless antiseptics are most effective in the absence of gross soil.

**Occupations Requiring Tear and Puncture Resistant Gloves**

Some occupations which may require tear and puncture resistant gloves are morticians, pathologists, mortuary workers, emergency medical technicians, corrections officers, fire fighters, police officers and other law enforcement occupations.

**Gloves**

Hypoallergenic gloves may include latex but should not be limited to latex and the new improved glove types (such as vinyl) may be available on the market in the future.

Inappropriate “baggy” gloves, for example, as used by bakers, etc., are not meant for contact with blood of the potentially infectious material.

## APPENDIX B
## SAMPLE WAIVER STATEMENT WHEN AN EMPLOYEE DECLINES THE HEPATITIS B VACCINATION

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 vaccination 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.

Employee Name (print):_____

Employee Signature:_____

Date:_____


Michigan Occupational Safety and Health Administration
PO Box 30643
Lansing, Michigan 48909-8143
Ph: 517-284-7740

**Appendix J**

**Central Michigan University**
**Bloodborne Pathogen Exposure Control Plan**

## TASK-SPECIFIC WORK PRACTICE and ENGINEERING CONTROLS

### Housekeeping Procedures in Restrooms and Residence Halls

The routine cleanup and disinfection of restrooms and residence hall bedroom areas are not considered activities that fall under the requirements of the Bloodborne Pathogens Standard.

It is recognized, however, that infectious agents responsible for other commonly occurring diseases may be present. Application of disinfectant to bathroom surfaces is commonly used to reduce occurrences of such diseases. Disinfectants used for this purpose must be used according to the manufacturer's directions. The Safety Data Sheet (SDS) may also advise use of personal protective equipment, e.g., gloves.

### A. Broken Glass

- Broken glass is not considered Medical Waste unless it is visibly contaminated with human blood or other potentially infectious material. However, broken glass must be handled with great care nonetheless.
- Sweep broken glass into a dustpan for placement into the disposal container. Broken glassware should be placed in a rigid cardboard box for disposal into a dumpster.
- Visibly contaminated glassware should be placed in an appropriate sharps container. Sharps containers must be puncture-resistant, labeled with the biohazard sign or color-coded, and leakproof on the sides and bottom.

### B. Bed Linen

- Bed linen, clothing, or towels are not treated as medical waste unless there is visible contamination with human blood or other potentially infectious material.
- Items that appear to contaminated with blood or other potentially infectious material should only be handled by employees who have received the required Bloodborne Pathogen Exposure Control training and personal protective equipment. If a non-trained employee finds a potentially contaminated item, he/she should contact their supervisor who will call an appropriately trained employee to manage the situation.
- Towels, linens, etc. that are contaminated, may be:
  - Disposed of as biohazardous medical waste
  - Decontaminated with an approved disinfectants, or
  - Placed in biohazard disposal bags for laundering by trained workers.

### C. Laundering of Contaminated Clothing or Bed Linens

The identification of contaminated clothing or bed linen is based upon the visible presence of human blood or other potentially infectious materials. "Dirty" clothing or bed linen which is not visibly contaminated may be handled and laundered by employees who have not been identified as having occupational exposure to bloodborne pathogens. Care must be taken, however, to insure that these

employees receive sufficient training to recognize potential contamination so that they may defer this work to trained and protected workers.

**D. Contaminated laundry or bed linen should be:**

- Handled as little as possible with a minimum of agitation.
- Properly bagged and not sorted or rinsed at the point of origin.
- Placed in appropriately labeled and fluid-resistant containers by the generating department. (Biohazard bags are suitable for this purpose).
- The containers must be kept closed during transport and until clothing is removed for laundering.
- Washed with detergent and water at a temperature of not less than $160^0$ F for at least 25 minutes.

**E. Housekeeping in Restrooms**

Employees who are responsible for housekeeping activities in restrooms need to take preventive measures to prevent contact with human blood or other potentially infectious material. Follow the Work Practice and Engineering Controls described in this plan for the cleanup and decontamination of potentially infectious materials such as blood spills, bandages, contaminated razors, broken glass, discarded feminine hygiene products, used condoms, etc.

**F. Disposable razors** are routinely discarded in residential bathroom facilities. Workers who are responsible for housekeeping in these areas may carefully handle and discard these razors into the general trash unless they are visibly contaminated with human blood or other potentially infectious material, or damaged in such a way that the razor blade is exposed. In these situations, workers must wear appropriate gloves and carefully place the razor in an appropriate sharps container. If a razor cannot be easily handled due to breakage, or if a bare razor blade must be discarded, the employee should pick up the razor with tongs or tweezers.

**G**. If **feminine hygiene products** have been placed in the bathroom's common waste receptacle, and the receptacle is lined with a wax lined paper bag, the bag may be removed and disposed as normal trash. Employees should wear gloves when removing and handling the trash bag.

To empty and disinfect a container that is dedicated for feminine hygiene product disposal:

- Feminine hygiene product disposal containers should be lined with a plastic bag.
- Wear gloves to remove the plastic bag from the container.
- Tie the plastic bag closed and place in the general trash.
- Wipe or spray surfaces of the container with disinfectant.
- Remove gloves in a manner that prevents skin contact with their outside surfaces. If reusable utility gloves are used, disinfect with disinfectant prior to leaving the site.

**Appendix K**

# Exposure Control Policy/Procedure

CARLS CENTER FOR CLINICAL CARE AND EDUCATION

## POLICY:

It is the policy of the Carls Center in the Herbert H. and Grace A. Dow College of Health Professions at Central Michigan University, that any department that utilizes the Carls Center shall take responsibility to ensure that proper exposure control and infection control procedures are followed.

Clinic Directors are responsible for providing information and training to all supervisors, employees, and students who have the potential for exposure to blood borne pathogens in proper infection control techniques. The Clinic Directors shall annually review the training programs with the University's Exposure Control Officer.

Clinic Directors are responsible for assuring that employees/students

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

## PROCEDURE:

All potential biohazard materials shall be placed in an orange biohazard bag. The bag shall be sealed and clearly labeled with type of contents (i.e.: vomitus, blood, etc.) and room number where bag was taken from.

All staff and students shall use universal precautions when handling biohazard materials.

**The clinical staff shall contact Carol Stevens, the CHP Co-Exposure Control Officer at x3015 to have the biohazard materials picked up.**

All staff and students are responsible for assuring that the appropriate staff is contacted to pick up the material(s).

The clinical staff shall inform the Carls Center Manager (x6508) or Carls Center Purchaser/Supplier (Kathy Hall-x3472) when the last biohazard bag in the patient room is used or bags are needed in additional rooms.

Report any problems to the Clinic Supervisor/Director or Carls Center Manager at 774-6508.

**Appendix L**

## DECONTAMINATION PROCEDURES FOR CMU POLICE

All equipment and clothing which has become contaminated with bloodborne pathogens shall be taken out of service. It shall be Central Michigan University Police Department policy that no equipment or clothing shall be put back in service until it is properly decontaminated, regardless of the emergency.

.

### A. DECONTAMINATION OF EQUIPMENT

Equipment which may become contaminated with bloodborne pathogens are, but not limited to, the following:

Weapons
Vehicles
Handcuffs
Reusable personal protective equipment
Eyeglasses

The following procedure is to be used to decontaminate equipment that has received a possible exposure to bloodborne pathogens.

- Take contaminated equipment out of service as soon as possible.

- Employees/officers performing decontamination procedure must wear personal protective equipment including but not limited to: Full length apron, Disposable sterile gloves, Protective goggles, and Disposable face mask.

- Wash equipment thoroughly with a fresh 1:10 bleach/water solution or other hospital-strength disinfectant with a sponge or brush. (*Note: When using disinfectant other than a 1:10 bleach / water solution, disinfectant should be verified with Health Services or Environmental & Safety Services).*

- Allow the solution or disinfectant to remain on the surface for ten minutes or the manufacturer's recommendation.

Rinse thoroughly with clean water.

- Reapply bleach / water solution or disinfectant, allow it to remain on the surface for ten minutes or the manufacturers recommended amount of time and rinse clean.

- Dry the equipment with a towel or allow to air dry before returning equipment to service.

- Dispose of disposable personal protective equipment, and cleaning supplies as if it is biohazardous waste.
- Note: for Patrol Cars, CMU's Custodial Services will be notified for decontamination.

## B. DECONTAMINATION OF EMPLOYEES / OFFICERS

The following procedure is to be used for the decontamination of an employee/officer which has received a possible exposure to bloodborne pathogens.

- Remove any contaminated clothing as soon as possible and place in a biohazard bag for cleaning or disposal.
- Using an antibacterial/antiviral soap, wash the contaminated and surrounding area thoroughly.
- Rinse with clean, warm water, removing all soap.
- Wash contaminated area thoroughly, again with antibacterial/anti-viral soap, and rinse clean.

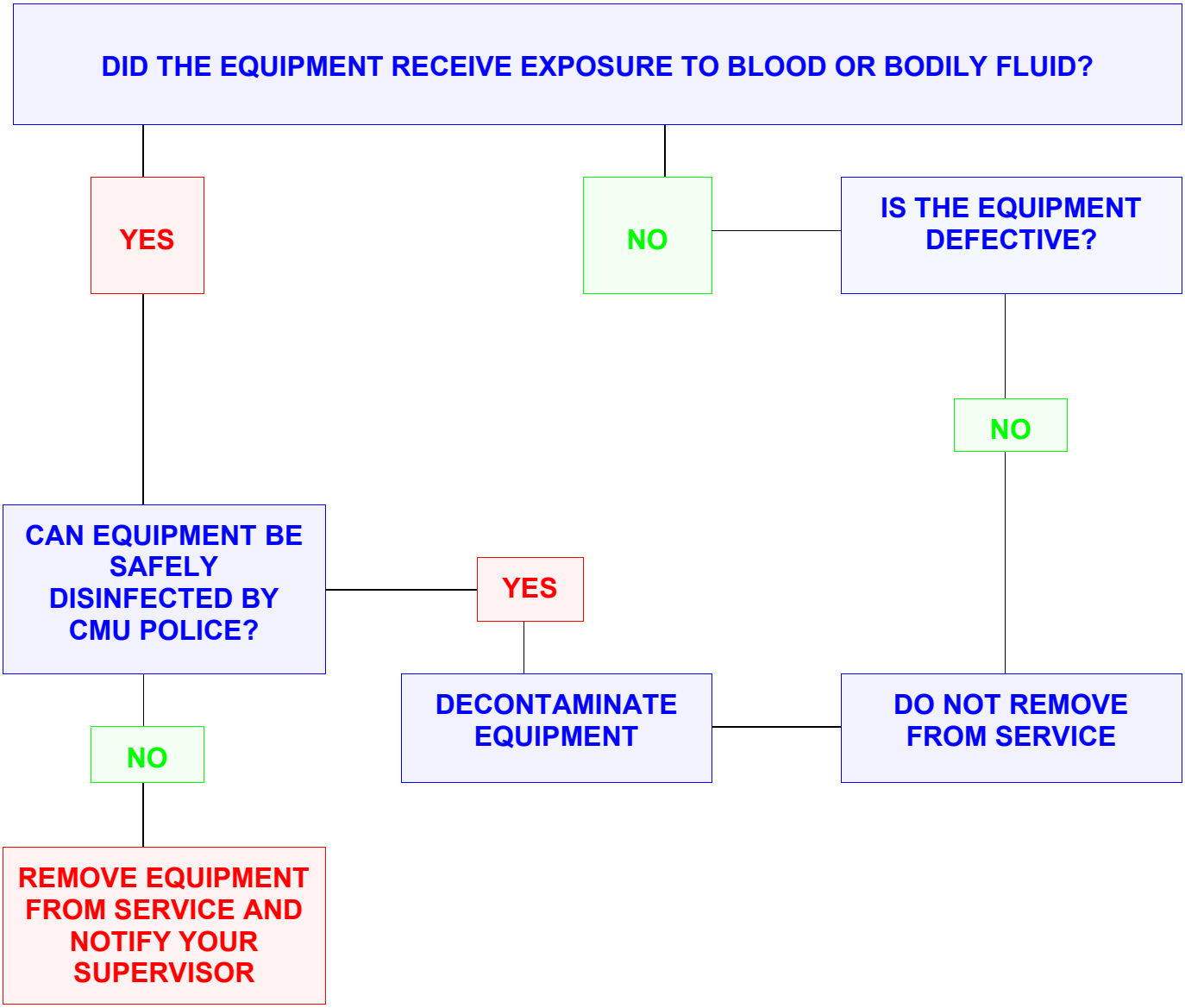
## C. DECONTAMINATION OF CLOTHING

The following procedure is to be used for the decontamination of clothing, such as uniforms, which may have become contaminated with bloodborne pathogens.

- All contaminated clothing should be removed as soon as possible.
- Contaminated clothing must be placed immediately into a Biohazard bag.
- Contaminated clothing in the biohazard bag is then brought to the approved dry cleaner for cleaning and decontamination.
- Clothing items made of leather or a like material shall be placed in a biohazard bag and disposed of as biohazardous waste, as they cannot be feasibly decontaminated.
- The employee/officer that was wearing the contaminated clothing must then follow the decontamination procedure for employees/officers found in this document.

**Appendix M**

**CMU POLICE DEPARTMENT**
**PROCEDURES FOR REMOVING EQUIPMENT FROM SERVICE**




NOTE: Some items such as leather shoes/belts may not be able to be decontaminated and will be disposed of as medical waste. Items will not be returned to service until proper decontamination has occurred.

**Appendix N**

**CMU POLICE DEPARTMENT**
BLOODBORNE CONTAMINATED EQUIPMENT
DISPOSITION FORM

**EXPOSURE**

Date _____ Related IV# _____

Reported by _____

Item Exposed
_____

License # (if vehicle) _____ S/N or VIN _____

Nature of Exposure _____

_____

**DISPOSITION**

Action Taken:
_____ Item cleaned with disinfectant
_____ Item taken out of service
_____ Item packaged and tagged for cleaning
_____ Item packaged and tagged for disposal
_____ Item turned over to _____.

Location where contaminated item is stored
_____.

Exposure Reported to _____
Date _____ Time _____

_____ in person
_____ by phone
_____ by memo
_____ this form

Reporting officer signature _____ Date _____

Shift Supervisor Signature _____ Date _____

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# FOLLOW-UP

_____ Item disinfected by _____

_____ Item disposed of at _____

Follow-up officer signature _____ Date _____