Occupational Health Concerns: An Overview

This PERC$ summarizes the requirements of recent Michigan Occupational Safety and Health Administration (MIOSHA) standards that address two serious occupational health concerns.

**Bloodborne Infectious Diseases**

MIOSHA has passed legislation on the control of infectious diseases in the workplace. Public agencies with employees working in the following occupations must implement a Bloodborne Infectious Diseases Control Plan:

- Correctional Officers
- Laboratory Workers
- Elder Care Center Workers
- Laundry Workers
- Emergency Medical Technicians (EMT)
- Law Enforcement Employees
- Fire Fighters
- Lifeguards
- Elder Care Center Workers
- Maintenance Workers
- Laundromat Workers
- Mental Health Residential Workers
- Any employees who administer first aid as part of their job descriptions or any employees having exposure to blood and other potentially infectious material.

Unlike other occupational hazards in our everyday work environment, occupational infectious diseases present public agencies with a new and challenging problem. Exposure to infectious diseases can be difficult to control and are often unanticipated. Therefore, stringent compliance with MIOSHA’s requirements for a Bloodborne Infectious Disease Control Plan is the best defense against occupational exposure to disease such as HIV or Hepatitis B.

**Bloodborne Pathogens-Exposure Plan**

MIOSHA’s plan has thirteen requirements. A summary of each requirement follows:

1. **General Policy Statement:** A general statement that addresses why employers must implement this program. The statement should define whom the policy affects, what the program involves, and why the program is necessary.

2. **Exposure Determination:** Employers who have employees with occupational exposure must conduct an exposure determination. To do this, the employer must evaluate job descriptions and routine and reasonably anticipated tasks and procedures to determine whether specific jobs have a risk of exposure.

3. **Classify employees** as Category A or Category B:
   - **Category A:** This category includes employees who
     - Perform procedures or job related tasks that will or might expose them to blood or other infectious material;
     - Have jobs that involve a likelihood for spills or splashes of blood or other potentially infectious material; or
     - Perform procedures or tasks conducted in non-routine situations as a condition of employment.
   
   - **Category B:** The category includes employees whose job functions do not involve exposure to blood or other potentially infectious material on a routine or non-routine basis as a condition of employment. They do not perform or assist in emergency medical care and the employer cannot reasonably anticipate their having exposure in any other way.
4. **Universal Precautions** is an approach to infection control. The concept states that "All human blood and certain human body fluids are treated as if it is infectious for HIV, HBV, and other bloodborne pathogens."

5. **Engineering Controls & Work Practice Controls**: "Engineering and work practice controls shall be used to eliminate or minimize employee exposure. Where occupational exposure remains after institution of these controls, personal protective equipment shall also be used."

6. **Personal Protective Equipment**: "Where there is occupational exposure, the employer shall provide, at no cost to the employee, appropriate personal protective equipment." Equipment is "appropriate" if it prevents blood or other potentially infectious materials from penetrating the employee’s work clothes or undergarments. The equipment must also prevent blood or other potentially infectious material from reaching the employee’s skin, eyes, mouth, or other mucous membranes. Equipment must provide protection under normal conditions of use and for the duration of time during which the employee uses it.

7. **Housekeeping**: Employers should make sure that the workplace is clean and sanitary. The employer must (1) develop and implement an appropriate written schedule for cleaning; and (2) develop appropriate decontamination methods for each location within the facility. Cleaning methods must be appropriate for the type of surface requiring cleaning, the type of soil present, and the tasks that employees perform in the area.

8. **Infectious Waste Disposal**: Employers must assure that all employees dispose of infectious or potentially infectious waste safely. Employers must provide appropriate containers and implement procedures to protect the safety of employees and others during the disposal of such wastes.

9. **Laundry**: Employers must establish laundry practices that minimize the risk of exposure to blood or other potentially infectious materials. Facilities that use Universal Precautions when handling soiled laundry may use their own coding systems as long as employees recognize the need to comply with Universal Precautions. If the facility ships laundry to a second facility that does not employ Universal Precautions, the facility generating the contaminated laundry must place it in containers color-coded in accordance with the standard.

10. **Vaccinations and Post-Exposure Follow-up**: Employers must offer and provide the hepatitis B vaccine and vaccination series to all employees with occupational exposure. In addition, employers must provide post-exposure evaluation and follow-up to all employees who experience an exposure incident. Employers must make the vaccine series available to all employees with exposure within 10 working days of initial assignment. This rule does not apply if employees have previously received vaccinations, or have taken an antibody test that reveals they are immune, or have medical conditions that would prevent vaccination.

11. **Communication of Hazards to Employees**: Employers are responsible for making sure that required locations and objects have warning labels. These include containers of regulated waste, freezers or refrigerators containing blood or other potentially infectious materials; and any other containers used to store, transport or ship blood or other potentially infectious material.

12. **Recordkeeping**: In accordance with the standard, the employer must establish and maintain accurate records for each employee with occupational hazard.
13. **Employee Information and Training:** "Employers shall ensure that all employees with occupational exposure participate in a training program which must be provided at no cost to the employee and during working hours." Employers must document this training.

**Michigan Occupational Health Program Directive 94-1**

**Tuberculosis Exposure**

Since 1985, the rate of new cases of TB in the general US population has increased 18%, reversing a 30-year downward trend. Nationwide, at least several hundred employees have become infected with TB and have required medical treatment. Approximately 10% of normally healthy people who are infected will develop active TB disease during their lifetime.

Recently, drug resistant strains of MYCOBACTERIUM TUBERCULOSIS have become a serious concern and cases of multi-drug resistant (MDR-TB) have occurred in forty states. When organisms are resistant to both drugs the course of treatment increases from 6 months to 18-24 months, and the cure rate decreases from 100% to 60% or less.

The Michigan Occupational Safety and Health Act, Public Act 154 of 1974, sets forth employers' responsibilities for maintaining a safe and healthful work environment. MIOSHA relies on the Centers for Disease Control (CDC) 1994 *Guidelines for Preventing the Transmission of Tuberculosis in Health-Care Settings*. The *Guidelines* are a widely recognized and accepted standard of protection that employers can follow to carry out their responsibilities under Act 154.

The compliance procedures contained in Directive 94-1 are also consistent with MIOSHA's traditional hierarchy of controls and good industrial hygiene practice. These dictate that engineering controls be used whenever possible to eliminate or reduce the hazard at its source. When it is not possible to prevent employee exposure to the hazard, employers should use other measures such as administrative or work practice controls. Lastly, employers must issue personal protective equipment to protect the employee.

Health-care employers must take the following actions to reduce the risk of tuberculosis transmission:

- Provide rapid diagnostic services.
- Provide appropriate curative and preventive therapy.
- Maintain physical measures to reduce microbial contamination of the air.
- Provide isolation rooms for persons with, or suspected of having, infectious tuberculosis.
- Screen health-care facility employees for tuberculosis infection and tuberculosis.
- Investigate and control outbreaks promptly.

Although completely eliminating the risk of tuberculosis transmission in the work environment may be impossible, adhering to these guidelines should minimize the risk to persons in these settings.
Occupational Health Self-Assessment

Occupational infectious diseases present a new challenge to various public service operations. Both the Occupational Safety and Health Administration (OSHA) and the Michigan Occupational Safety and Health Administration (MIOSHA) require employers to comply with regulations safeguarding employees who may be exposed to bloodborne or airborne pathogens. Controlling infectious diseases can be difficult and predicting exposure to them often impossible. There are, however, a number of steps an employer must take to prevent the spread of bloodborne infectious diseases and, where the agency provides health care services, Tuberculosis. Each employer should evaluate the services it provides and determine what precautions it needs to implement.

Has your organization:

1. Identified which employees must be covered by a Bloodborne Infectious Disease Plan?
   - Yes □  No □

2. Determined what elements the plan must include?
   - Yes □  No □

   The plan must include:
   - A general policy implementation statement.
   - An evaluation of each position to determine exposures (Category A & B employees).
   - Identification of universal precautions.

3. Determined the actions it needs to take?
   - Yes □  No □

   Required actions include:
   - Eliminating hazards through the use of engineering and work practice controls.
   - Providing employees with appropriate personal protective equipment.
   - Assuring all employees follow proper housekeeping practices.
   - Providing appropriate infectious waste disposal containers.
   - Establishing safe laundry practices.
   - Providing vaccinations and follow-up examinations.
   - Retaining records in accordance with MIOSHA standards.
   - Affix warning signs to all hazards.
   - Providing a written plan for employee review.
If you operate a health care facility or have employees who may be routinely exposed, has your organization:

4. Developed appropriate training?
   Yes ☐ No ☐

   **The training program should include:**
   - A warning to employees of the hazards that exist in the work place.
   - A review of the Exposure Plan.
   - Universal precaution procedures.
   - How to use personal protective equipment.
   - Proper laundry procedures and good housekeeping practices.
   - Safe waste disposal practices.

5. Developed a program for preventing the spread of Tuberculosis?
   Yes ☐ No ☐

   **The program should:**
   - Follow the Center for Disease Control Guidelines available from MIOSHA.
   - Eliminate hazards through engineering controls.
   - Utilize administrative or work practice controls.
   - Provide and enforce the use of protective equipment.
   - Investigate outbreaks and provide rapid diagnostic and preventive therapy.
   - Reduce contaminated air.
   - Provide isolated rooms for persons suspected of infection.
   - Screen health care staff for infection.

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**Conclusions**

😊 If you were able to honestly answer “yes” to all four of five of the questions and your organization follows most or all of the suggested practices, then your organization has reduced its exposure to future claims. You should congratulate yourself.

😢 If you were unable to answer “yes” to one or more of the critical questions, your organization may have a greater exposure to claims. Missing components of one or more of the recommended practices may also indicate a deficiency in your current program. You should take one or more of the following actions:

- Correct any deficiency that may exist;
- Contact the Michigan Department of Labor, SET Division at 517/322-1809;
- Contact the Michigan Department of Labor, Bureau of Occupational Health Division at 517/335-8250;
- Contact MML Risk Management Services at 800/653-2483; or
- Contact the League’s Loss Control Services at 800/482-0626.

NOTE:
This document is not intended to be legal advice or implied to identify all occupational health concerns. Public agencies are encouraged to contact a specialist for assistance in implementing these or other changes.

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