# **Exposure Control Plan for Biological Hazards**









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## Introduction

Physician employers must develop and implement an exposure control plan (ECP) if staff have the potential for exposure to biological agents that could pose a health risk as detailed in the *Occupational Health and Safety (OHS) Regulation Part 6.34*.

This is an example of an ECP that will assist physicians in customizing a plan for their practice that meets the requirements of the OHS Regulation. Employers must consider the plan, and ensure that it meets their operational needs, and is implemented and understood by staff.

If you have any questions or need further assistance, contact a SWITCH BC Health and Safety Advisor by emailing <u>CPHS@switchbc.ca</u>.

# **Policy and Scope**

The policy of is to ensure our staff, and the first aid attendant where applicable, are protected from occupational exposure to biological hazards in compliance with the *Workers Compensation Act* and *Occupational Health and Safety (OHS) Regulation*.

This exposure control plan covers all staff as it is reasonably anticipated that they may have harmful contact with blood, or other potentially infectious materials (OPIM) while performing their job duties.

#### 1. Purpose and Responsibilities

The purpose of this ECP is to eliminate or minimize the risk of occupational exposure to biological agents deemed hazardous by WorkSafeBC (biological hazards), which includes all human pathogens capable of causing adverse health effects. This plan focuses on managing exposure to blood and other potentially infectious materials (OPIM) through clinic processes, while also reducing the risk of infection in the event of an exposure.

#### **Definitions:**

**Contaminated:** The presence or the reasonably anticipated presence of blood or OPIM on an item or surface found in the medical clinic.

Harmful contact: An exposure incident to blood or OPIM through:

- Percutaneous injury (injury through the skin from a contaminated sharp item such as a needle).
- Contact with the mucous membranes of the eyes, nose, or mouth.
- Contact with non-intact skin (healing wound less than three days old or lesion causing disruption of outer skin layer).

**Other potentially infectious materials (OPIM):** Other materials besides blood that can be sources of blood-borne pathogens. Examples include semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, or saliva.

## Employer Responsibilities:

The employer will:

- Supervise staff with respect to biological hazards.
- Ensure staff use engineering controls and follow safe work practices and procedures.
- Ensure staff wear appropriate personal protective equipment.
- Ensure staff receive education and training on biological hazards and the exposure control plan initially on employment and annually.
- Ensure the post-exposure procedure is followed for exposure incidents to blood or OPIM.
- Initiate investigations of exposure incidents to blood or OPIM.

## Staff responsibilities:

Staff will:

- Use the provided engineering controls.
- Follow safe work practices and procedures.
- Wear the appropriate personal protective equipment (PPE) provided.
- Attend education and training.
- Follow the post-exposure procedure in the event of an exposure incident to blood or OPIM.
- Participate in investigations of exposure incidents.

## 2. Risk Identification and Assessment

The clinic will:

- Conduct a risk identification and assessment of the potential occupational exposure to biological hazards.
- Implement engineering controls, safe work practices, and written work procedures to eliminate or reduce potential exposure to biological hazards.
- Provide staff with appropriate PPE.
- Ensure staff are provided with education and training on biological hazards and the exposure control plan.
- Offer vaccination against hepatitis B virus to all workers who are at risk of occupational exposure to that virus.
- Ensure all pertinent records are maintained.
- Set up a check system to ensure staff who have an exposure incident to blood or OPIM are medically evaluated in an emergency department and followed up with primary care if deemed necessary by the initial medical evaluation.
- Ensure exposure investigations are conducted, and corrective actions are taken to prevent similar incidents from occurring.
- Review the ECP annually and update it as necessary.

## 3. Control Procedures

Engineering and safe work practice controls are the preferred means to eliminate or minimize exposure to biological hazards in the clinic. PPE is used to add protection if these controls do not reduce exposure sufficiently.

#### **Engineering controls**

- A needleless device or safety-engineered needles are used for withdrawing body fluids, accessing a vein or artery, and administering medications or fluids.
- A biological safety cabinet is used to store biological material.
- Sharps disposal containers are in the:

for discarding disposable, contaminated sharp items.

## Practice controls and safe work procedures

As specified in the WorkSafeBC, <u>Occupational First Aid: A Reference and Training Manual OHS</u> <u>Guidelines for Part 3: Occupational First Aid</u>, staff will do the following:

- Follow infection control precautions.
- Use pocket masks with one-way valves when ventilating patients.
- Follow safe sharps handling procedures, such as discarding any disposable, contaminated sharp items in sharps disposal containers immediately after use.
- Wear waterproof, disposable medical examination gloves when assessing and treating patients if there is potential contact with blood, body fluids, secretions, excretions, mucous membranes, or non-intact skin, and when touching contaminated items or surfaces.
- Wear gloves if they have non-intact skin on their hands, after covering the affected skin with a waterproof dressing.
- Replace gloves if they are torn, cut, punctured, or leaking, and when they become contaminated or damaged such that their ability to function as a barrier is questioned.
- Use disposable gloves only once.
- Do not bend, recap, or manually remove contaminated needles.
- Follow procedures for glove removal.
- Wash hands with gentle soap and water immediately after removing gloves and after touching blood or other infectious materials.
- Follow the cleanup procedures for spills of blood and OPIM that minimize splashing.

- Ensure food or drinks are not stored or consumed in exam rooms or in first aid facilities.
- Follow the post-exposure health management procedure after an exposure incident to blood or OPIM.

## **Personal Protective Equipment (PPE)**

- All bodily materials should be treated as if known to be contaminated at all times. The use of PPE is mandatory.
- All PPE for biological hazards used at this clinic will be provided.
- Workers wear PPE whenever biological hazards are handled.
- Waterproof, disposable medical examination gloves are available in the They will be worn and used as

specified above.

- Eye and/or face protection in the form of safety goggles and/or face shield is available in the This will be worn by staff when it can be reasonably anticipated that the mucous membranes of the eyes, nose, or mouth may be splashed or sprayed with blood or OPIM (i.e., relieving subungual hematomas).
- Respiratory protection in the form of surgical masks and/or N95 disposable respirators is available in the This will be worn by staff when it can be reasonably anticipated that they will likely be exposed to airborne particles.
- Gowns in the form of washable cloth or disposable paper gowns are available in the They will be worn by staff when it can be reasonably anticipated that their skin or clothing may come in contact with blood or OPIM (i.e., during blood spill cleanup).

## Cleaning, laundry, and waste

All shared reusable equipment (e.g., blood pressure cuffs, otoscopes, baby scales, tables, and examination beds) and surfaces will be decontaminated as soon as possible after contamination with blood or OPIM, as well as on a routine basis. Use a hospital grade disinfectant with a drug identification number, in accordance with manufacturer's instructions, and contact (wet) time requirements to ensure pathogens have been killed.

## Laundry

Soiled laundry must be handled with gloves and minimal agitation to prevent the spread of contaminants. Blood-soiled items should be separated from other laundry and clearly labeled as biohazardous. All laundry should be washed at temperatures above 70°C using appropriate detergents and disinfectants to ensure the elimination of pathogens. After washing, items should be thoroughly dried using a high heat setting to further reduce contamination risks.

### Waste

Sharp medical waste must be collected in red or yellow containers made of a rigid, puncture-resistant, and impervious plastic labeled with a biohazardous logo and label. They will be securely closed and replaced when they are two-thirds full and then be sent to a hazardous waste facility for appropriate disposal.

Non-sharp medical waste items (e.g., aprons, surgery drapes, disposable gloves, pads, dressings, and syringes without needles) that are not dripping, saturated, or grossly contaminated with blood or OPIM are considered general waste and can be discarded in waterproof waste bags for disposal at a landfill.

Items that are dripping, saturated, or grossly contaminated with blood or OPIM are considered biomedical waste. They must be appropriately bagged and disposed of in accordance with the <u>Environmental Management Act</u>, <u>Hazardous Waste Regulation</u> and <u>Transportation of Dangerous Goods Act</u> and <u>Regulation</u>.

## **Universal precautions**

Staff will treat all blood and OPIM as though they are known to be infected with biological agents considered to be hazardous and will follow infection control precautions and procedures as specified. This includes the following:

- Following precautions to prevent sharps injuries.
- Using resuscitation devices.
- Wearing personal protective equipment.
- Following handwashing procedures.

## 4. Education and Training

All staff will be educated and trained regarding biological hazards before they commence work as employees. Clinic-specific orientation, education, and training will be provided or arranged by the employer.

## 5. Hygiene Facilities and Decontamination Procedures

Handwashing facilities are located in the:

Staff will follow handwashing procedures as follows:

- Remove any rings or other jewelry.
- Use warm water and wet your hands thoroughly.

- Use a sufficient amount of soap.
- Lather soap and scrub hands well, palm to palm.
- Scrub in between and around fingers, and back of each hand.
- Scrub fingertips of each hand and under your nails in opposite palm.
- Scrub each wrist clasped in opposite hand.
- Rinse thoroughly under running water.
- With a paper towel turn off the tap or faucets.
- Dry your hands with a single use towel or air dryer.

Waterless alcohol-based hand sanitizer that contains at least 60% ethanol is available if handwashing facilities are not immediately available. They are located in the:

Staff will wash their hands with soap and running water as soon as possible after the use of the hand sanitizer.

If staff have an exposure incident to blood or OPIM, they must follow the post-exposure health management procedure for decontamination.

#### 6. Health Management Procedure

#### Post-exposure health management procedure

For the initial management of an exposure incident to blood or OPIM, staff will:

- Immediately self-administer first aid. If a needle stick or sharps injury, allow the wound to bleed freely and wash the area with soap and water.
- Report the incident to the employer who will report the exposure to WorkSafeBC.
- The exposed staff must present to the emergency department within two hours for a medical evaluation which includes blood work. Reporting must not cause delay in seeking medical attention.

Follow-up management will include:

- Reassessment by a family doctor if deemed necessary by the initial medical evaluation at the emergency department.
- Appropriate documentation of the exposure incident (first aid record, incident report, and WorkSafeBC claim forms).
- An investigation to prevent similar exposure incidents to blood or OPIM from occurring in the clinic.

### 7. Record Keeping

The employer is required to keep occupational exposure records. Records such as first aid treatment records; incident or accident reports and related investigation reports; WorkSafeBC forms; and health records will be securely kept for all staff exposure incidents to blood or OPIM.

Additionally, records will be kept by the employer documenting staff education and training on biological hazards and the clinic exposure control plan. Training records should include the date, session topics, a summary, and qualifications of the trainer.