



## BLOOD BORNE PATHOGEN AWARENESS TRAINING

### Purpose and Scope of the Standard

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The purpose of the Bloodborne Pathogen Standard is to protect workers from bloodborne infectious diseases. Protection is particularly targeted toward employees exposed to agents or occupational situations that could cause accidental transmission of any bloodborne infectious disease in general and both HIV and HBV in particular.

Active Canadian Emergency Training recognizes the concern regarding the hazards associated with exposure to potentially infectious materials such as blood and other body fluids. This pre course handout assists our students / clients with the recognition, assessment and control of risks associated with potential exposure to bloodborne pathogens.

## 1. DEFINITIONS

### *Bloodborne Pathogens*

Bloodborne pathogens are pathogenic microorganisms that can be present in human blood and can cause disease in humans. The most prevalent types of bloodborne pathogens include:

- Human Immunodeficiency Virus (HIV).
- Hepatitis B Virus (HBV).
- Hepatitis C Virus (HCV).

These diseases can create serious health effects and can be fatal.

### *Body Fluid Carriers*

Body fluids capable of transmitting HIV, HBV, and HCV from an infected individual include:

- Blood and all biological fluids visibly contaminated with blood.
- Laboratory specimens that contain concentrated HIV, HBV, and HCV.
- Vaginal secretions or semen (however, both unlikely to transmit HCV).
- Saliva (if a bite is contaminated with blood and only HBV if bite is not contaminated with blood).
- Feces, nasal secretions, sputum, tears, urine, and vomit are not implicated in the transmission of HIV, HBV, and HCV unless contaminated with blood.



## PREVENTION PROCEDURES

### ***2. Universal Precautions***

To prevent the transmission of bloodborne pathogens, “Universal Precautions” must be used with the assumption that all blood and certain body fluids are potentially infectious. “Universal Precautions” is an approach to infection control and requires the use of exposure control measures and personal safety equipment to protect against exposure to bodily fluids. This includes wearing gloves, masks, goggles, and gowns when appropriate, proper disposal methods and disinfecting contaminated areas.

#### **The universal precautions are as follows:**

- Treat all individuals as potentially infectious when handling bodily fluids.
- Wash hands with soap and water before and after direct contact with people or objects possibly contaminated with blood and other bodily fluids.
- Clean all potentially contaminated work surfaces with disinfectant solution (see below) after providing care to each person. Clean immediately if spill occurs.
- Cover all cuts or sores on hands.
- Wear gloves when providing personal care where exposure to bodily fluids exists and for disposal of all waste products (i.e. dressings, bandages, discarded syringes and needles).
- Do not re-use disposable gloves. Wash hands with soap and water after removal of gloves.
- Wear protective goggles and apron/gown when soiling by blood splatter, bloody secretions, or bodily fluids is expected.
- Use a pocket barrier device during cardio-pulmonary resuscitation (CPR) procedures.
- Discard single use (disposable) needles and syringes after use in an appropriate Sharps container. Do not re-cap needles after use.
- **Double bag all waste products that are soiled with blood. Discard in regular garbage.**



### 3. Exposure Control

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Employing proper exposure control techniques can reduce the likelihood of employee exposure to infectious agents. The following precautions are recommended for individuals who handle blood and OPIM: (Other Potentially Infectious Material)

- Eating, drinking, smoking, applying cosmetics and handling of contact lenses are should be prohibited in “At Risk” work areas
- PPE should be available and worn as outlined
- Universal Precautions shall supplement routine exposure control recommendations
- Waste shall be managed as outlined in your policy.

#### *Safety Supplies for “Universal Precautions”*

The following safety/cleaning supplies should be kept on hand to allow for the proper implementation of Universal Precautions. They are as follows:

- Disposable syringes.
- Sharps container with biohazards label.
- Disinfectant solution (1:10 chlorine bleach or commercial product).
- Hand washing facilities (soap, water, single use disposable towels).
- Plastic disposal bags.
- Pocket CPR barrier device.

#### *Spills Procedure*

- Wear gloves, goggles & gown while implementing any spills cleanup.
- Potentially infected spilled material should be immediately cleaned up.
- Apply a 1:10 chlorine bleach solution to contaminated surface, leave for 20 minutes, and wipe up.
- Rinse bloodstained clothing and cleaning equipment (mops) in a 1:10 chlorine bleach solution and then launder normally. Put soiled laundry into a plastic bag if unable to wash immediately, and launder as soon as possible.
- Wipe contaminated equipment with a 1:10 solution of chlorine bleach and leave to soak in warm sudsy water.
- **Notify your Supervisor of the Incident**



## Blood Spills

- Only those who have had bloodborne pathogen training should clean up a blood spill, because they understand the hazards and how to keep themselves safe while properly handling the clean-up process.
- Wear appropriate protective equipment. At a minimum you must wear gloves and eye protection during spill clean-up to protect yourself from exposure.
- Use disposable towels to soak up most of the blood and properly dispose of immediately after use.

### *Contaminated First Aid Materials*

- The disposal procedures for Contaminated First Aid materials include disposal of contents in a garbage bag (double bagged and tagged). Place the tagged bag in a lavatory garbage receptacle.
- The disposal procedures of Dirty needles include placing them in a puncture proof container.

## **4. Post-Exposure of Blood Borne Pathogen**

### Decontaminate

- Skin: wash thoroughly with soap and water
- Mucous membranes (eyes, nose, mouth): rinse thoroughly with water or normal saline
- Environmental surface: wash with solution of 1:10-1:100 household bleach and water or other appropriate disinfectant

### Report Exposure Incident to Designated Individual

- Document the route of exposure [i.e., needlestick or absorption through mucous membrane (eyes, nose, mouth)]
- Complete the necessary injury report/ log if medical treatment (beyond first-aid) required
- **Report incident to your supervisor.**



## Hepatitis B Information

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### HEPATITIS B

#### **WHAT IS HEPATITIS B?**

Hepatitis B (HBV) is a liver disease that causes inflammation of the liver. This inflammation can cause liver cell damage, which can lead to scarring of the liver (cirrhosis) and an increased risk of liver cancer. Each year in the U.S. more than 100,000 people contract HBV. Approximately 90-95% of adults will recover within six months and not contract HBV again. However, blood tests will always show that they have been infected with HBV and blood banks will not accept their blood. Approximately 25-90% of children under the age of five that are infected with HBV are unable to clear the virus within six months and are considered to be chronically infected, commonly called hepatitis B carriers.

#### **WHAT ARE THE SYMPTOMS?**

Many people with acute hepatitis B have no symptoms at all, or they may be very mild and flu-like: loss of appetite, nausea, vomiting, diarrhea, fatigue, muscle or joint aches and mild fever. About 25-35% of the patients may notice dark urine, yellowing of skin and eyes (jaundice), or light colored stools. A few patients have a more severe course of illness and may die of fulminant (overwhelming) hepatic failure within a short period of time after getting sick.

#### **HEPATITIS B VACCINATION**

Most people infected with hepatitis B recover completely. The remainder constitutes a spectrum of chronicity ranging from asymptomatic carrier state, through on-going debility and liver dysfunction, to cirrhosis and hepato-cellular carcinoma. Rarely the infection causes acute fulminant hepatitis and death within days of onset. Newborns of infected mothers are at greatest risk of developing chronic disease.

Hepatitis B vaccine is recommended for active immunization against Hepatitis B virus infection. The vaccine provides a 90% protection against the Hepatitis B virus and is recommended for health care providers, illness related risk groups (haemodialysis patients, those receiving blood or blood derivatives), those with potential exposure to body secretions (recommended for first aiders, janitorial and maintenance workers) and/or contaminated needles, and foreign travelers. Contact your Supervisor or Employer regarding your company policy.



## **ADVERSE REACTIONS**

The Hepatitis B vaccine is well tolerated and shown to be safe with rare significant side effects. Occasionally there have been reports of local soreness, redness and swelling at the injection site which usually subsided within two days. Systemic complaints such as fever and flu-like symptoms have been reported rarely; a causal relationship has not been established. Immediate, allergic responses occur extremely rarely, i.e. hives, swelling of the tongue or difficulty breathing, (signs of hypersensitivity).

## **RISK FACTORS**

Hepatitis B Vaccine should NOT be taken by persons with:

- An allergy to yeast
- A sensitivity to thimersol or aluminum or mercury
- Active respiratory or other active infections or illnesses

## **PRECAUTIONS**

The following should be referred to their family physician:

- Those with a chronic medical condition
- Pregnant women