7.14 Bloodborne Pathogen Exposure Control Plan

Purpose

The purpose of this exposure control plan is to minimize employee occupational exposure to blood and bodily fluids and to recommend appropriate follow-up procedures.

Scope

Covers all employees who could "reasonably anticipate" coming in contact with blood/bodily fluids as a result of performing their duties.

Definitions

Bloodborne pathogens are microorganisms in the blood or other body fluids that can cause illness and disease. These microorganisms can be transmitted through contact with blood/bodily fluids of infected people. Body fluids include:

- Blood
- Semen/vaginal fluids
- Amniotic fluid (fluid around the unborn baby)
- Pericardial fluid (fluid around the heart)
- Peritoneal fluid (fluid around the abdomen)
- Synovial fluid (fluid in the joints)
- Cerebrospinal fluid (fluid surrounding the brain and spinal cord)
- Breast milk – has been shown to transmit only HIV
- Saliva – is known to transmit only hepatitis B
- Any body fluid with visible blood

Contaminated refers to the soiling or making inferior by contact or mixture, as by introduction of organisms in a wound.

Disposable means not for reuse and to be disposed of following use.

Excretion is the act, process or function of throwing off or eliminating, as waste matter, by a normal discharge (eg, feces, urine)

Mucous Membranes is a surface layer of epithelial tissue covering a deeper layer of connective tissue that line cavities or canals of the body that open to the outside. They protect the underlying structure, secrete mucous, and absorb water, salts, and other solutions.

Secretion is the cellular process of developing a specific product (eg, saliva, gastric juices)

Route of Entry is the path by which a bloodborne virus may enter the human body via:

- open cuts or skin abrasions/scrapes
- mucous membrane
- sexual contact
- indirect transmission (a person touches dried or caked blood and then touches the eyes, mouth, nose or open cut – HBV only)
- sharps

Sharps are a restricted waste and must not be discarded in regular garbage, but must be put into a sharps container. The term includes those instruments used to puncture, cut or scrape body parts and that, as waste, can cause punctures or cuts to solid waste handlers or the public. The sharps definition includes, but is not limited to the following items:

- needles
- syringes
- IV tubing with needles attached
- lanclets
- scalpel blades
- glass Pasteur pipettes
- razor blades
- other sharp, metal lab waste
- broken glass

Universal Precautions (aka Routine Practices) is the term used to describe a prevention strategy in which all blood/bodily fluids are considered and treated as infectious.

Introduction

There are four different ways that infections can be spread from one person to another:

1. Direct contact – for example, when you touch the blood of someone who is infected.
2. Indirect contact – for example, when you pick up something that an infected person has touched.
3. Airborne Transmission – for example, when an infected person sneezes, sending germs into the air, and you breathe in those germs.
4. Vector Transmission – for example, when a mosquito bites an infected person and then bites you, passing on the germs.

Some infections are spread through only one of these routes. Others may be spread through several routes.

There are some basic precautions that can be taken to stop disease from spreading:
- Personal Precautions – actions that individuals can take to reduce the risk of spreading disease
- Equipment Precautions – items that protect you from direct contact with contaminated objects
- Environmental Precautions – the set-up of an area that reduces the exposure to germs.

Exposure Control Plan

To limit occupational exposure to blood and/or blood products, an exposure plan includes the following:

1. Engineering and Work Practice Controls

Universal precautions will be observed by all employees of the South Shore Regional School Board in order to prevent contact with blood or other potentially infectious materials. This approach is to be used in all situations where exposure to blood or potentially infectious material is possible. This also means that certain engineering and work practice controls should be utilized in situations where exposure may occur.

Engineering and work practice controls will be utilized to eliminate or minimize exposure to all employees and students.

1. The importance of meticulous and frequent hand washing is essential. Hand washing is the single most effective way to prevent the spread of infection. Employees must wash all the affected area of the skin with soap and water or flush mucous membranes with water as soon as possible following an exposure incident.

2. Employees must wash their hands immediately after removal of gloves or other personal protective equipment. Employees shall familiarize themselves with the nearest hand washing facilities in the building.

3. Gloves shall be removed in such a manner as to prevent skin contact with contaminated areas. The procedure for glove removal is:
    - Grasp the cuff of one glove.
    - Pull the cuff towards the fingers, turning the glove inside out.
    - As the glove comes off, hold it in the palm of the other hand.
    - Slide your fingers under the cuff of the other glove.
    - Pull the cuff towards the fingers over the first glove
    - Wash hands with soap and running water as soon as possible. Lather with soap for 10-15 seconds and use paper towel to shut off taps.

3. All disposable sharps should be handled with care to prevent accidental exposure to blood-borne pathogens. Sharps are to be discarded immediately after use in a puncture-proof container specifically designed for disposal of sharps. It is recommended that individuals obtain a personal disposal container and located in a secure location but accessible for staff and student use. These containers are available free from local pharmacies and may also be returned to the pharmacy once filled and properly sealed.

4. Employees who encounter needles that have not been properly discarded shall notify the Principal and the teacher immediately of the location of the needle(s). Any employee exposed to a needle prick injury is to report to their supervisor immediately. Do not bend, break, or otherwise manipulate used needles by hand. Do not recap used needles or other capped sharp items. Do not overfill sharps disposal containers.

5. Needles and syringes may only be disposed by using a mechanical device or tool (forceps, pliers, broom or dust pan).

7. Employees must perform all procedures involving blood or other potentially infectious material in such a manner as to minimize splashing, spraying, splattering, and generation of droplets of these substances.

8. No eating, drinking, smoking, applying make-up, brush teeth or handling contact lenses are allowed in work areas where there is a reasonable likelihood of occupational exposure.

9. Do not store food or drink in an area where contact with blood or bodily fluids, secretions or excretions is likely.

10. Established dietary policies and procedures for food handling and care of equipment must be followed. The use of disposable dishes are no routinely required to prevent the spread of infection. Hand washing is essential. Food handling courses are available through the Department of Agriculture and Fisheries and guidelines are available in the "Home Support Workers, Curriculum Standard, 1998".

11. Good hygiene and work practice controls are required to maintain health and minimize the risks, including personal grooming (showering/bathing, hand care, trimmed and clean nails, and meticulous and frequent hand washing)

2. General Housekeeping and Cleaning

1. Routine housekeeping is sufficient under normal circumstances. Follow recommendations for cleaning and disinfectant products. Further cleaning shall be provided should situations occur that require alternate or more detailed cleaning or disinfecting.

2. Bathrooms may be shared with others and routine cleaning procedures are sufficient. It is essential that visible soiling with blood, body fluids, secretions or excretions is immediately cleaned and disinfected. Frequently handled areas such as door knobs and handrails should be cleaned and disinfected as part of routine housekeeping procedures.

3. In the event of any spill of blood or other potentially infectious material, and prior to starting any clean-up, gloves must be worn. All contaminated work surfaces, tools, objects, etc., will be decontaminated immediately or as soon as feasible with disposable toweling before applying a disinfectant. Contaminated towels are to be disposed in plastic bags. Cover with paper towel and soak with disinfectant and leave in contact with contaminated work surfaces, tools, objects, or potentially infectious materials for at least 10 minutes before cleaning. Remove gloves and wash hands. Use signage to warn of wet floors as appropriate.

4. Wipe area with water soaked paper towel. Reduce splashes or sprays. Dispose of paper towel in regular plastic bags. Disinfect area and dispose of infectious material as per facility policy.

5. Wash hands thoroughly after glove removal.

6. Equipment which may become contaminated with blood or other potentially infectious materials will be examined and decontaminated before further servicing or use.

7. Broken glassware will not be picked up directly with the hands. Sweep or brush material into a dustpan.

8. Known or suspected contaminated sharps shall be discarded immediately in a sharps container.

9. When containers of contaminated sharps are being moved from the area of use or discover, the containers shall be closed before removal or replacement to prevent spillage or protrusion of contents during handling, storage, or transport.

10. Follow municipal guidelines for infectious waste. Do not overfill garbage bags. Garbage bags should be carried away from clothing to prevent soiling. Full garbage bags should be carried to prevent touching the floor and prevent ripping of the garbage bag.

11. Use appropriate personal protective equipment (PPE).

2. Personal Protective Equipment

Where the risk of occupational exposure remains after the institution of engineering and work controls, personal protective equipment shall also be utilized. Personal protective equipment are only effective when worn properly, and may include gloves, gowns, masks, eye wear, and mouth pieces.

All First Aid kits shall contain gloves and disposable mouth pieces. A regular inventory of the contents must be taken according to the Nova Scotia First Aid Regulations, N.S. Reg. 104/2001.

Disposable gloves should be worn when touching blood, body fluids, secretions (including saliva), excretions (urine, feces), and items contaminated with these fluids. Gloves should be worn when touching mucous membranes and broken skin. If an employee has an allergy to disposable vinyl or latex gloves, cotton gloves may be worn under the gloves. An employee shall contact their supervisor immediately for instructions on precautions if they have a chronic skin condition and hands have open areas or bleed.

All personal protective equipment will be chosen based on the anticipated exposure to blood or other potentially infectious materials. The personal protective equipment will be considered appropriate only if it does not permit blood or other potentially infectious materials to pass through or reach the employee's clothing, skin, eyes, mouth, or mucous membranes under normal conditions of use. The duration of time for which the personal protective equipment will be used must also be considered.
Employees must:

1. Utilize personal protective equipment during situations where occupational exposure may occur.

2. Remove garments that become penetrated by blood or other potentially infectious material immediately or as soon as possible.

3. Place all garments in the appropriately designated area or container for storage, cleaning, decontamination or disposal.

4. Replace all garments that are torn or punctured, or that lose their ability to function as a barrier to bloodborne pathogens.

5. Remove all personal protective equipment before leaving the workplace.

6. Wash hands following glove removal.

Post-Exposure Evaluation and Follow-Up

All exposure incidents shall be reported, investigated, and documented. When an exposure incident occurs, it shall be reported immediately to their supervisor.

Following the report of an incident of exposure the employee shall go to their family doctor or the Emergency Care of the nearest medical facility as soon as possible for a confidential medical evaluation and follow-up. The evaluation must include a minimum of:

1. Documentation of the route(s) of exposure
2. A description of the circumstances under which the exposure occurred.
3. The identification and documentation of the source individual.
4. The collection and testing of the blood of the individual involved for HBV, HCV and HIV serological status.
5. Evaluation of any reported illness by the attending physician.

Modes of Transmission

In most work or laboratory situations, transmission is most likely to occur because of accidental puncture from contaminated needles, broken glass, or other sharps; contact between broken or damaged skin and infected body fluids; or contact between mucous membranes and infected body fluids. Anytime there is blood-to-blood contact with infected blood or body fluids, there is a potential for transmission.

Unbroken skin forms an impervious barrier against bloodborne pathogens. However, blood can enter your skin through:

- open sores
- cuts
- abrasions
- acne
- any sort of damaged or broken skin

Bloodborne pathogens may also be transmitted through the mucous membranes of the:

- eyes
- nose
- mouth

Hepatitis B Vaccines

Employees who have routine exposure to blood/body fluids shall see their family physician to obtain the Hepatitis B vaccine.