

## **PREVENTION OF BLOOD BORNE DISEASES**

The following Division standard applies mainly to diseases that are transmitted through blood but are also to be followed when handling other body fluids such as sputum, vomit, urine or feces. It also describes how to dispose of used needles and what to do in the event of a bite or blood exposure.

1. What is a blood borne disease?

A blood borne disease is an illness caused by harmful biological organisms or pathogens that live primarily in blood. Blood borne pathogens that cause disease include viruses such as hepatitis B, hepatitis C and human immune-deficiency virus (HIV)-AIDS.

2. How are blood borne diseases transmitted?

Generally speaking, most school staff and students are not at high risk of exposure to blood borne pathogens. Blood borne pathogens are not transmitted through casual contact, however they can develop if infected blood enters the body through cuts or breaks in the skin, and through the mucus membranes of the eyes, nose or mouth.

3. What is the risk of disease transmission in a school setting?

Staff is at potential risk when there is a possibility of blood contact when cleaning up blood or vomit, providing personal care (e.g. toileting) giving first aid or working with children who are known biters. Staff that may be at most risk include first aid personnel, special education staff, physical education teachers and playground supervisors.

Blood and body fluids visually contaminated with blood present the highest risk for disease transmission. The greatest risk is from a penetrating injury such as a needle stick. Saliva and other body fluids may contain viruses but in low concentrations compared to blood. The risk of transmission from biting is far less than the risk from exposure due to a penetrating injury such as a needle stick.

Biting however can pose a risk to the person who is bitten as well as the person who bites if there is a break in the skin. The risk is higher if there is visible blood to the wound. In addition, bites if not properly treated can result in infection with organisms that do not cause serious diseases.

4. How do I know if a person has a blood borne disease?

You won't unless this information has been voluntarily given to you. Carriers of blood borne diseases do not generally exhibit symptoms. For confidentiality reasons, health professionals cannot disclose the medical status of individuals without their permission. This is why we treat everyone as potentially infectious.

Blood borne diseases are notifiable diseases under the Public Health Act. If a staff member or student becomes infected, physicians and laboratories must report this to regional public health officials. Public health nurses will notify individuals who may have close contact with the infected person and advise of any special precautions.

5. How can the spread of blood borne diseases be prevented in the workplace?

Since we do not usually know whose blood is infected, the safest approach is to treat all blood and body fluids as if it contains pathogens. Originally developed for hospitals, universal precautions have been adapted to a wide range of work settings. They apply to all situations where staff or students have risk of exposure to blood or body fluids.

Universal Precautions includes: The use of disposable gloves, eye protection and a respirator to provide a barrier to blood and body fluids.

- 5.2. Washing hands when gloves are removed or whenever the skin contacts potentially infectious fluids.
- 5.3. Using barrier masks when performing artificial respiration.
- 5.4. Training staff on proper precautions and blood clean up procedures.
- 5.5. Ensuring emergency eyewash stations are maintained and all staff is aware of their location(s).
- 5.6. Immunization of staff that may frequently be in contact with blood or work with higher-risk populations such as children with biting behaviors.
- 5.7. In some cases specialized protective equipment such as gloves, arm guards and special bite protection clothing may prevent punctures to the skin.

6. What is considered an exposure to blood and body fluids?

Situations in order of risk:

- 6.1 Punctures of the skin with blood-contaminated needles, lancets, scalpels, or other sharp instruments.
- 6.2 Splashes to non-intact skin bearing minute scratches, abrasions, burns, or even minor rashes.
- 6.3 Splashes to mucous membranes of the mouth, nose, or eyes.
- 6.4 Biting injury where visible blood is present.

7. Follow up protocol for blood or body fluid exposure incidents:

- 7.1 STAY CALM
- 7.2 Treat all exposures as potentially infectious.
- 7.3 Encourage bleeding of the injury site (gently squeeze) and wash thoroughly with soap and running water. If direct contact with eyes is involved flush with eyewash or water for fifteen (15) minutes.
- 7.4 Apply an antiseptic and band-aid to the site.

- 7.5 If the exposure involves a needle stick, ensure the needle is disposed of in a tamper/puncture proof container. Keep available in case it needs to be tested by a health professional.
  - 7.6 Immediately report the incident to your supervisor. The supervisor is to immediately notify the Division Safety and Wellness Coordinator to discuss the circumstances of the exposure and whether further medical attention and follow up is warranted. The Safety and Wellness Coordinator may consult with the Alberta Health Services – Needle Stick Response Team for further advice.
  - 7.7 Higher risk situations include a needle stick injury or a bite where skin is broken and visible blood is seen. In these cases the staff member is advised to get a baseline blood test (for Hepatitis B, C and HIV) on the same day as the incident. In the case of bites if the source of the exposure is known (i.e. student) the parent/guardian is also to be advised to obtain a blood test for their child on the same day of the incident. This is because the biter can also be at risk of contracting a blood borne disease. If the source student is negative no further testing or follow up of the employee is necessary. If the source of blood exposure is unknown or the student does not get a blood test then further follow up testing for the employee may be required in higher risk situations. In these cases post exposure immunization and counseling may be recommended by a health professional. The Director of Human Resources would work with Alberta Health Services-Needle Stick Response team (780-480-6598) or the employee's health care provider to coordinate follow up.
  - 7.8 Document the exposure incident on a Division Incident/Injury Record. Fax a copy to the Director of Human Resources and file a copy at the worksite. If the employee is covered by WCB, a Worker's and Employer's Report of Injury is also required to be completed if there is time loss associated with the incident. If the incident occurs after hours contact Alberta Health Link at 780 408-5465 for advice.
  - 7.9 Any bills associated with follow up, testing or immunization are to be forwarded to the Director of Human Resources.
8. What is the procedure for cleaning up small blood/body fluid spills?

It is advisable to make up a basic body fluid spill kit and keep in a Ziploc bag near the first aid kit. A basic body fluid spill kit contains the following:

- 8.1 Disposable gloves (Latex free)
- 8.2 Commercial absorbent<sup>1</sup> (1/2 cup) (including product Material Safety Data Sheet)
- 8.3 2 plastic disposable waste bags with twist tie
- 8.4 Disposable wiping cloth or paper towels
- 8.5 Thin piece of cardboard or plastic scoop/scrapper
- 8.6 Protective eye goggles

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<sup>1</sup> "Super-Sorb" or similar product is available through the custodian.

8.7 Labeled spray bottle for dispensing Disinfectant Solution<sup>2</sup>

8.8 Clean up instruction sheet

Optional:

8.9 1 disposable N-95 respirator (if there is risk of splashing or aerosol generation)

8.10 1 pair of disposable shoe covers

8.11 Disposable pre-packaged disinfectant wipes/towelettes

Procedure:

8.12 Isolate the spill area to prevent other people from contacting it.

8.13 Put on protective gloves, eye goggles and respirator.

8.14 Gather paper towels and spray bottle of disinfectant solution (mixed fresh).

8.15 If using a sorbent apply over the spill and wait for it to gel.

8.16 Remove all visible debris/material using paper towels and/or scraper tools working from least to most soiled area. Pre-clean the area with the disinfectant and wipe clean. Place the towels and debris in a plastic bag.

8.17 Apply a second application of the disinfectant and allow to remain wet for the minimum contact time required by the product and let air dry. If using EP-50 the minimum contact time is five (5) minutes. (Note: consult with the custodian if the spill is on a carpet or soft furnishings).

8.18 Place soiled paper towels and disposable equipment in plastic bag.

8.19 Remove gloves (folding inside out) and respirator and place in plastic bag with soiled towels.

8.20 Close plastic bag and place in a second plastic bag and dispose of as general waste.

8.21 Wash hands and thoroughly with soap and water.

8.22 Wash non-disposable equipment with soap and water and rinse in disinfectant solution.

9. What do you do with a used needle, lancet or epipen?

9.1 Never throw needles or sharps down drains, toilets or in the regular garbage.

9.2 Never reach into garbage bags or containers with bare or gloved hands.

9.3 If you find a used needle, carefully pick it up with tweezers or wearing thin disposable gloves then wash hands immediately after disposing.

To safely dispose:

9.4 Drop the needle or sharp into a commercially available tamper proof sharps collectors.

9.5 If a sharps container is unavailable use an empty, resalable, hard-surfaced (puncture

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<sup>2</sup> Avmor EP-50 Disinfectant in proper dilutions is available on site from the custodian. This should be mixed fresh. A minimum contact time of 5 minutes is required. This product is preferred over bleach. If bleach is the only product available mix a fresh 10% solution (1 part bleach to 9 parts water). A 10 minute contact time is required for bleach.

proof) container such as a coffee can or bleach bottle labeled “Sharps – Not for Recycling”.

- 9.6 Keep the container out of reach of children or pets.
- 9.7 Do not fill the container right to the top. Commercial containers will have a clearly defined fill line.
- 9.8 When the container is full, seal the lid securely.
- 9.9 Contact the Safety and Wellness Coordinator to arrange for safe disposal.

#### 10. General Disinfection of Surfaces (e.g. change tables)

- 10.1 Wear the appropriate protective equipment.
- 10.2 Review the Material Safety Data Sheet (MSDS) for cleaning and disinfection products before use.<sup>3</sup>
- 10.3 If surfaces are visually soiled with dirt, grit or body fluids (e.g. sticky or gritty to the touch) both cleaning and disinfection is required. This requires two (2) separate applications of the disinfectant solution. One to clean away organic debris and the second to disinfect. Disinfection will not be properly completed if soil or body fluids are not cleaned away first.
- 10.4 For surfaces that have not been soiled, a single wipe with the disinfectant solution and air drying is acceptable.
- 10.5 Ensure the entire surface to be cleaned and/or disinfected is covered with solution (not partial coverage). A firm rubbing and wiping motion must be used.
- 10.6 Allow to air dry for at least five (5) minutes (or as indicated on the instructions) after last application of the disinfectant. This will allow the necessary contact time for the disinfectant to work. No rinsing is required.
- 10.7 If spray bottles are used avoid misting on to surfaces. Hold cloth close to spray nozzle and spray directly onto cloth first. (Note: Paper towels are not as absorbent as cloths and may cause solution to drip). Hold towel and bottle over the equipment to be disinfected to catch drips or use more absorbent cloths that can be laundered and reused.
- 10.8 A small 12 oz boat mop can be used to apply the solution from a bucket to larger areas such as floor mats. The mop head however must be dedicated for this purpose and cleaned/laundered after each use.
- 10.9 Disinfectant solutions are to be mixed fresh daily to ensure maximum effectiveness (the product becomes less stable in its diluted form). Try to dispense only what you would typically use in a day.
- 10.10 Disinfectants are not to be used on food surfaces (unless used as a sanitizing solution-see label for dilution requirements). Rinsing the food surfaces with potable water is required after sanitizing.

#### 11. Where can I obtain more information on blood borne pathogens and diseases?

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<sup>3</sup>Avmor EP-50 is the disinfectant of choice used in Division schools.

For additional information, contact the Division Safety and Wellness Coordinator, or Alberta Health Link at 780 408-5465.

Adopted/Revised: JUN 2016/NOV 2019/JAN 2023

Reference: Section 11, 33, 52, 53, 196, 197, 222 Education Act  
Emergency Medical Aid Act  
Freedom of Information and Protection of Privacy Act  
Health Information Act  
Occupational Health and Safety Act  
Public Health Act  
Charter of Rights and Freedoms (Canada)  
Communicable Disease Regulation (AR 238/85)  
Ministerial Directive 4.1.1 – HIV / AIDS in Educational Settings  
Occupational Health and Safety Code  
Occupational Health and Safety Regulations