
Unit 10: Personal Protection

Overview

As a critical session of the course, the focus in Unit 10 shifts the anticipation and possible contact with body fluids, which are potentially infectious.



Unit 10

Framework

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| <p style="text-align: center;">Core Content Outline</p> <p>10.1 Anticipating Contact 10.2 Universal Precautions 10.3 Prevention Guidelines 10.4 First Aid</p> | <p style="text-align: center;">Objectives</p> <p>By the conclusion of this unit, drivers will be able to:</p> <ol style="list-style-type: none">1. Describe universal precautions.2. Describe appropriate procedures for handling cuts, wounds, abrasions and bodily fluids. |
| <p style="text-align: center;">Suggested Time</p> <p style="text-align: center;">30 minutes</p> | <p style="text-align: center;">Preparation</p> <ol style="list-style-type: none">1. Sample equipment such as first aid kit and blood spill kit.2. Projector, screen, and PowerPoint in place. |

BEST PRACTICE BACKGROUND

Anticipating Potential Contact

The duties and responsibilities of school bus drivers and school bus aides, at times, seem almost limitless. In addition to the everyday challenges of operating the bus and managing students, pupil transportation personnel will have to deal with the bumps, bruises, cuts and spills associated with their profession. Drivers and aides should anticipate potential contact with body fluids, which are potentially infectious materials.

Employees must use universal precautions when situations arise that will present the hazard of an infection. Those situations can range from placing a Band-Aid on a cut to cleaning up urine or feces. Proper precautions such as hand-washing, gloves, mask and other protection will help reduce the chance of direct contact with potentially infectious bodily fluids and reduce the chances of contamination or infection.

Code of Virginia

§ 22.1-271.3. Guidelines for school attendance for children infected with human immunodeficiency virus; school personnel training required; notification of school personnel in certain cases.

A. The Board of Education, in cooperation with the Board of Health, shall develop, and revise as necessary, model guidelines for school attendance for children infected with human immunodeficiency virus. The first such guidelines shall be completed by December 1, 1989. The Board shall distribute copies of these guidelines to each division superintendent and every school board member in the Commonwealth immediately following completion.

B. Each school board shall, by July 1, 1990, adopt guidelines for school attendance for children with human immunodeficiency virus. Such guidelines shall be consistent with the model guidelines for such school attendance developed by the Board of Education.

C. Every school board shall ensure that all school personnel having direct contact with students receive appropriate training in the etiology, prevention, transmission modes, and effects of blood-borne pathogens, specifically, hepatitis B and human immunodeficiency viruses or any other infections that are the subject of regulations promulgated by the Safety and Health Codes Board of the Virginia Occupational Safety and Health Program within the Department of Labor and Industry.

D. Upon notification by a school employee who believes he has been involved in a possible exposure-prone incident which may have exposed the employee to the blood or body fluids of a student, the division superintendent shall contact the local health director who, upon immediate investigation of the incident, shall determine if a potentially harmful exposure has occurred and make recommendations, based upon all information available to him, regarding

how the employee can reduce any risks from such exposure. The division superintendent shall share these recommendations with the school employee. Except as permitted by § 32.1-45.1, the division superintendent and the school employee shall not divulge any information provided by the local health director regarding such student. The information provided by the local health director shall be subject to any applicable confidentiality requirements set forth in Chapter 2 (§ 32.1-35 et seq.) of Title 32.1.

Applying Universal Precautions

Universal precautions should be applied to all blood and bodily fluids. The employee should assume that any bodily fluids, blood or unknown fluids are infectious and that those fluids could contain pathogens such as HIV and Hepatitis B. HIV and Hepatitis B can be found in: Blood, spinal fluid, synovial fluid, vaginal secretions, semen, pericardial fluid, breast milk, peritoneal fluid, amniotic fluid, pleural fluid.

About Infectious Diseases

Infectious diseases are caused by pathogenic microorganisms, such as bacteria, viruses, parasites or fungi; the diseases can be spread, directly or indirectly, from one person to another. There are two types of pathogens- bloodborne and airborne.

A bloodborne pathogen is a type of bacteria or virus that is spread by contact with an infected individual's blood or other potentially infectious body fluids.

An airborne pathogen is a type of bacteria or virus which is caused by pathogenic microbial agents and transmitted through the air. These viruses and bacteria travel through the air by means of coughing, sneezing and laughing or through close personal contact (Meningitis, Chicken pox, Tuberculosis, Influenza).

Avoiding direct contact with body fluids

Vomit, blood, urine, bile and saliva are all fluids that school bus drivers and bus aides may encounter. Any body fluids or unknown fluids should be

treated as if they contain bloodborne pathogens.

Clean-Up: Spills of blood and body fluids should be cleaned up immediately with an approved disinfectant cleaner.

Procedure

1. Wear gloves.
2. Mop up spill with absorbent material.
3. Wash the area well, using the disinfectant cleaner supplied in the clinics or a 1:10 bleach solution (mix 1 part household bleach, sodium hypochlorite, in ten parts of water). Replace solution daily (See local policy).
4. Dispose of gloves, soiled towels, and other waste in sealed plastic bags and place in garbage, as already indicated.
5. WASH HANDS.

What should I do immediately if I come into contact with another person's blood or body fluids?

Wounds and skin sites that have been in contact with blood or body fluids should be washed with

soap and water; mucous membranes should be flushed with water. Immediate evaluation must be performed by a qualified health care professional.

Employers should follow all federal (including the Occupational Safety and Health Administration (OSHA)) and state requirements (§ 22.1-271.3.) for recording and reporting occupational injuries and exposures. The following information should be included in the exposure report, recorded in the exposed person's confidential medical record, and made available to qualified health care professionals.

- Date and time of exposure
- Details of where and how the exposure occurred
- Details of the exposure, including the type and amount of fluid or material and the severity of the exposure
- Details about the exposure source
- Details about the exposed person (e.g., hepatitis B vaccination

and vaccine-response status)

- Details about counseling, post-exposure management, and follow-up

What should I do if I am bitten by a student or if one student bites another?

A human bite can lead to potentially serious infections. These are injuries that can develop when a person's teeth breaks the skin of another person's body part(s) and introduces saliva or blood containing pathogens into the body of either person.

Human bites carry a risk of infection.

Human Bite Treatment

1. Wear gloves. Use Standard Precautions.
2. Remove rings and bracelets from bitten extremity.
3. Cleanse wound thoroughly with soap and water for 5 minutes.
4. Cover wound with clean bandage (preferably sterile).
5. Determine individual's tetanus immunization status.

6. Assess Hepatitis B vaccination status of involved individual.

7. Call parent and recommend contact with health provider.

CPR /Rescue breathing

School buses purchased, leased or contracted after September 27, 2006, in Virginia are required to be equipped with a mouth-to-mouth airway for use in CPR/ rescue breathing. Mouth-to-mouth barriers help protect administrators of CPR from possible pathogen infection.

In addition local policy may require first aid training.

Required Items

The following items are required on public school buses in the Commonwealth of Virginia.

First-Aid Kit

1. Bus shall carry Grade A metal first-aid kit, unit-type, mounted in full view and in an accessible place in the front of the bus and identified as a first-aid kit.

2. The first-aid kit shall contain the following items:

- Bandage compress (sterile gauze pads) 4-inch (3)
- Bandage compress (sterile gauze pads) 2-inch (2)
- Adhesive absorbent bandage (nonadhering pad) 1 x 3 inch (2)
- Triangular bandage, 40-inch (2)
- Gauze bandage, 4 inch (2)
- Absorbent-gauze compress (1)
- Antiseptic applicator (swab type) 10 per unit (2)
- (Zephiran Chloride/Green Soap type)
- Bee sting applicator (swab type) 10 per unit (1)
- Pair medical non-latex examination gloves (1)
- Mouth-to-mouth airway (1)

Body Fluid Clean-up Kit

1. Each bus shall carry a Grade A metal or rigid plastic kit, mounted in an accessible place and identified as a body fluid clean-up kit with directions for use sheet attached to the inside cover.

2. The kit shall be moisture proof and properly mounted or secured in a storage compartment.

3. Contents shall include, but not be limited to, the following items:

- One pair non-latex gloves
- One pick-up spatula or scoop
- One face mask
- Infectious liquid spill control powder
- Anti-microbial hand wipes – individually wrapped
- Germicidal disinfectant wipes – tuberculocidal
- Plastic disposal bag with tie

Diseases Spread Through the Respiratory Tract

Communicable infectious diseases that are usually spread through the respiratory tract—including those commonly known as chickenpox, common cold, flu, measles, bacterial meningitis, tuberculosis, and whooping cough—can be spread from person to person by direct, indirect, or airborne transfer of the disease-causing organism (infectious agent).

Organisms that cause such diseases include bacteria

and viruses. When a person infected with such a disease coughs, sneezes, blows their nose, sings, or talks (usually limited to about 1 yard) they can produce infected droplets (large infected particles that settle out of the air) or infected airborne particles (microbial aerosols that do not settle out of the air for a long time).

Direct transmission of the organisms can occur by direct contact with the mucous membranes of the infected person (e.g., touching or kissing) or direct projection (spray) of the droplets onto the eye, nose, or mouth. Indirect transmission of the organisms can occur, for most of the diseases, by hands and articles (e.g., handkerchiefs, toys, pencils, books, desks) freshly soiled by droplets, discharges from nose and throat, or secretions from lesions of an infected person—the organisms are transmitted by contaminated hands carrying organisms to the mucous membranes of the eye or nose. Furthermore, transmission of the organisms can occur by inhalation of airborne

particles. Diseases spread through the respiratory tract can be mild (e.g., viral colds) or life threatening (e.g., bacterial meningitis). People who are infected with such diseases and do not wash their hands after touching their eyes, nose, or mouth increase the likelihood of spreading the disease by contaminating articles with discharges from their respiratory tract. The organisms can easily be transferred to others through those contaminated articles. In addition, people who are infected with respiratory disease and do not cover their mouths and nose when coughing or sneezing can increase the likelihood of airborne spread, which can predominate among crowded populations in enclosed spaces (e.g., school buses). VIRGINIA SCHOOL HEALTH GUIDELINES

Prevention Techniques

- Wash/clean your hands
- Clean your bus
- Educate your students on transmission and prevention
- Use personal protective equipment

School Bus Cleanliness

School bus cleanliness is very important. Some bacteria can survive on the bus's interior surfaces for months. Floors, seats, handrails, ceilings, windows, handles and the driver's area should be regularly and properly cleaned. Proper cleaning will reduce the chances of pathogen transmission from direct surface contact. The school bus's interior should be cleaned with a cleaner that has been approved by your division.

References

Virginia School Health Guidelines

http://townhall.virginia.gov/1/GetFile.cfm?File=E:%5Ctownhall%5Cdocroot%5CGuidanceDocs%5C601%5CGDoc_VDH_1768_v1.pdf

Accessed, March 2012

- Appendix B: First Aid Guide for School Emergencies (PDF)
- Appendix C: Universal Precautions and Infectious Diseases (PDF)

First Aid Guide for School Emergencies (PDF)

<http://www.vahealth.org/childadolescenthealth/schoolhealth/documents/firstaidguide.pdf>

Accessed, March 2012

Centers for Disease Control and Prevention

http://www.cdc.gov/oralhealth/Infectioncontrol/faq/bluetooth_exposures.htm

Virginia School Bus Specifications – Revised Nov. 3, 2011