

Carroll County Volunteer Emergency Services Association

**2019 Bloodborne Pathogens
Update**

Everyone Sign Roster

- **Sign-In Rosters**

- **Required for all CCVESA Providers. Station infectious Control Officers should maintain a master attendance roster at their station. Providers who complete the program on the CCC Blackboard will automatically receive credit for completing the program but as a backup should sign a station roster**
- **Please Clearly Print Name, MIEMSS I.D. #, and Company Affiliation on station rosters.**
- **Copies of all completed rosters must be sent back to the EMS Training Coordinator by April 30, 2015**

Bloodborne Pathogens

Lesson objectives:

1. Define bloodborne pathogens.
2. Identify key aspects of a bloodborne Pathogen Exposure Control Plan.
3. Describe methods for controlling exposure to bloodborne pathogens.
4. Describe steps to take when exposed to a bloodborne pathogen.

Bloodborne Pathogens

- **NFPA 1581**

Standard on Fire Department Infection Control Program
(2000)

- Fire fighters and emergency responders should be educated on the diseases that have the potential for occupational exposure. annually
- The standard requires that a fire department establish procedures for reporting an exposure incident and provide instructions for the treatment of an exposure


Bloodborne Pathogens

What are **bloodborne pathogens**?

- Pathogenic microorganisms present in human blood that can lead to diseases
- Examples of primary concern
 - Hepatitis B (HBV)
 - Hepatitis C (HCV)
 - Human Immunodeficiency Virus (HIV)

Bloodborne Pathogens

2014

<p>Facts <i>about</i> Ebola in the U.S.</p>	<p>You CAN'T get Ebola through AIR</p> 
<p>You CAN'T get Ebola through WATER</p> 	<p>You CAN'T get Ebola through FOOD grown or legally purchased in the U.S.</p> 

You can only get Ebola from

- The body fluids of a person who is sick with or has died from Ebola.
- Objects contaminated with body fluids of a person sick with Ebola or who has died of Ebola.
- Infected fruit bats and primates (apes and monkeys).
- And, possibly from contact with semen from a man who has recovered from Ebola (for example, by having oral, vaginal, or anal sex).



1981

1 in 8 people with **HIV** don't know **THEY** have it.



Get the facts. Get tested. Get involved.

Find out more about HIV, including where to get tested, at gettested.cdc.gov




2016

TOP 5 THINGS EVERYONE NEEDS TO KNOW ABOUT ZIKA



- 1** Zika primarily spreads through infected mosquitoes. You can also get Zika through sex.

Many areas in the United States have the type of mosquitoes that can spread Zika virus. These mosquitoes are aggressive daytime biters and can also bite at night. Also, Zika can be passed through sex from a person who has Zika to his or her sex partners.


- 2** The best way to prevent Zika is to prevent mosquito bites.

 - Use insect repellent. It works!
 - Wear long-sleeved shirts and long pants.
 - Stay in places with air conditioning or window and door screens.
 - Remove standing water around your home.
- 3** Zika is linked to birth defects.

Zika infection during pregnancy can cause a serious birth defect called microcephaly that is a sign of incomplete brain development. If you have a partner who lives in or has traveled to an area with Zika, do not have sex, or use condoms every time you have sex during your pregnancy.


- 4** Pregnant women should not travel to areas with Zika.

If you must travel to one of these areas, talk to your healthcare provider first and strictly follow steps to prevent mosquito bites during your trip.


- 5** Returning travelers infected with Zika can spread the virus through mosquito bites.

If you get infected with Zika and a mosquito bites you, you can pass the virus to the mosquito. The infected mosquito bites other people, who get infected. Returning travelers should also use condoms or not have sex if they are concerned about passing it to their partners through sex.

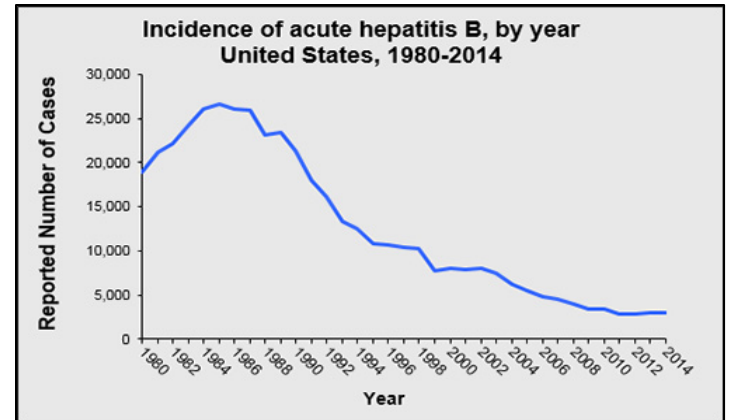


WWW.CDC.GOV/ZIKA



Bloodborne Pathogens

- Hepatitis B (HBV)
 - Over 12 million Americans are infected (1 in 20)*
 - Silent infection; symptoms include jaundice, fatigue, abdominal pain, loss of appetite, intermittent nausea, vomiting; may lead to chronic liver disease, liver cancer, and death
 - HBV can survive for at least one week in dried blood
 - Up to 40,000 people in US will become newly infected each year*



*Source: Hepatitis B Foundation

Bloodborne Pathogens

- The hepatitis B vaccination series must be made available to all employees who have occupational exposure. The employer does not have to make the hepatitis B vaccination available to employees who have previously received the vaccination series, who are already immune as their antibody tests reveal, or for whom receiving the vaccine is contraindicated for medical reasons.
- The hepatitis B vaccination must be made available within 10 working days of initial assignment, after appropriate training has been completed.
- All medical evaluations and procedures, including the hepatitis B vaccine and vaccination series, are to be provided according to the current recommendations of the U.S. Public Health Service (USPHS).

Bloodborne Pathogens

- If an employee declines the hepatitis B vaccination, the employer must ensure that the employee signs a hepatitis B vaccine declination. The declination form is found in Appendix A of the standard.
- Employees have the right to refuse the hepatitis B vaccine and/or any post-exposure evaluation and follow-up. Note, however, that the employee needs to be properly informed of the benefits of the vaccination and post-exposure evaluation through training. The employee also has the right to decide to take the vaccination at a later date if he or she so chooses. The employer must make the vaccination available at that time.
- The responsibility lies with the employer to make the hepatitis B vaccine and vaccination, including post-exposure evaluation and follow-up, available at no cost to the employees.

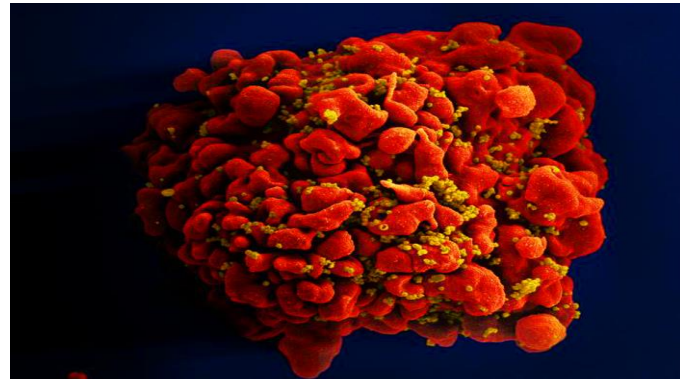
Bloodborne Pathogens

- Hepatitis C (HCV)
 - Hepatitis C is the most common chronic bloodborne infection in the U.S.
 - Symptoms include: jaundice, fatigue, abdominal pain, loss of appetite, intermittent nausea, vomiting
 - May lead to chronic liver disease and death

Bloodborne Pathogens

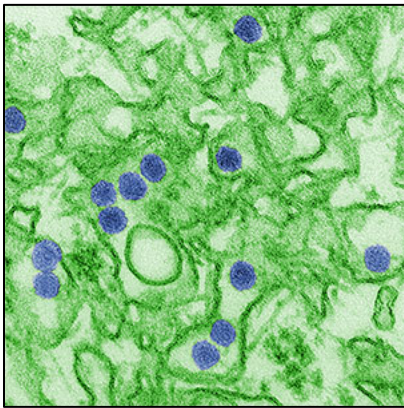
- Human Immunodeficiency Virus (HIV)
 - HIV is the virus that leads to AIDS
 - HIV affects the body's immune system
 - HIV does not survive well outside the body
 - Estimated >1.1 million people living with HIV
 - Infected for life

Single red colored H9-Tcell infected by numerous mustard colored HIV particle which are attached to the cell's surface membrane.

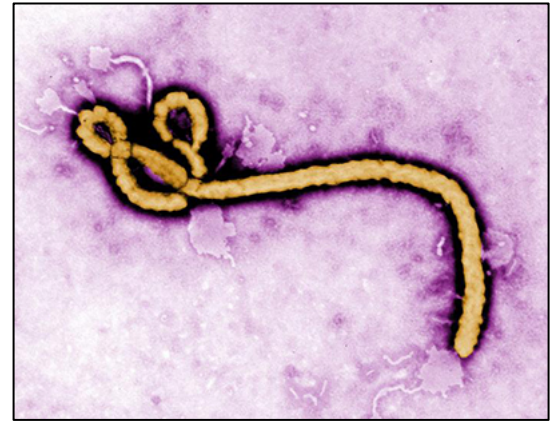


Bloodborne Pathogens

- Other bloodborne diseases
 - Caused by viruses or bacteria
 - Circulate in blood at some phase; capable of being transmitted
 - Most are rare in the U.S.



Zika Virus (left) and Ebola Virus (right) can be spread to workers through contaminated blood or infectious body fluids.



Bloodborne Pathogens

No vaccinations for:

- Hepatitis C
- HIV

At the present time there are no vaccinations available for Hepatitis C and HIV.



Bloodborne Pathogens

- Examples
 - Hepatitis D (HDV)
 - Syphilis
 - Malaria
 - Babesiosis
 - Brucellosis
 - Leptospirosis
 - Arboviral Infections
 - Relapsing fever
 - Creutzfeldt-Jakob Disease
 - Human T-Lymphotropic Virus Type I
 - Viral Hemorrhagic Fever

This is a list of other bloodborne diseases – caused by viruses or bacteria; these circulate in blood for prolonged periods during at least some phases and, therefore, capable of being transmitted through blood or other potentially infectious materials; most are rare in the U.S.

Bloodborne Pathogens

Contamination sources:

- Blood
- Other potentially infectious materials (OPIM)
 - Human body fluids
 - Any unfixed tissue or organ from human
 - Cultures, culture mediums, or other solutions
 - Experimental animal blood, tissues, or organs infected with HIV or HBV



Bloodborne Pathogens

1. Blood – human blood, human blood components, and products made from human blood
2. Other potentially infectious materials (OPIM) **29 CFR1910.1030(b)**
 - a. Human body fluids
 - i. Semen
 - ii. Vaginal secretions
 - iii. Cerebrospinal fluid
 - iv. Synovial fluid
 - v. Pleural fluid
 - vi. Pericardial fluid
 - vii. Peritoneal fluid
 - viii. Amniotic fluid
 - ix. Saliva
 - x. Any body fluid visibly contaminated with blood
 - xi. All body fluids which are difficult/impossible to differentiate between fluids

Bloodborne Pathogens

- b. Any unfixed tissue or organ (other than intact skin) from a human (living or dead)
- c. HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions
- d. Blood, organs, or other tissues from experimental animals infected with HIV or HBV

Bloodborne Pathogens

Spread of bloodborne pathogens occurs through:

- Direct contact
- Indirect contact
- Respiratory transmission
- Vector-borne transmission

Bloodborne Pathogens

Spread of bloodborne pathogens - primarily through:

1. Direct contact – infected blood or body fluid (mucous) from one person is transferred directly to another person
2. Indirect contact – a person touches an object that contains the blood/body fluid of an infected person
3. Respiratory transmission – person inhales respiratory droplets from an infected person (through cough or sneeze)
4. Vector-borne transmission – person's skin is penetrated by a bite (or other means) from an organism carrying the disease (mosquitoes, ticks, etc.)

Airborne exposure

TUBERCULOSIS

- Bacterial disease caused by the infectious agent *Mycobacterium tuberculosis*
- Bacteria that can cause TB is transmitted by infected airborne particles
- Infectious particles are produced when the infected person talks, coughs, or sneezes

CDC: Persons who spend a lot of time in enclosed spaces with people who have TB disease are at the highest risk of becoming infected with *M. tuberculosis*

Airbourne Exposure

TUBERCULOSIS PREVENTION

- **Avoid exposure - prevention with universal precautions remains your best protection against TB**
 - Use appropriate PPE
 - Use N-95 mask
 - Provide flow through ventilation in the patient compartment during transport
 - Follow all policies and procedures

Bloodborne Pathogens

Examples of Modes of Transmission:

- Contact with another person's blood or bodily fluid that may contain blood
- Accidental injury by contaminated sharps/needles
- Contact with open cuts, nicks and abrasions
- Contact with mucous membranes in eyes, mouth, nose and ears
- Industrial accident
- Administering first aid
- Post-accident cleanup

Airborne exposure

- **Anthrax**

- Respiratory infection in humans is relatively rare and presents as two stages. It infects the lymph nodes in the chest first, rather than the lungs themselves, a condition called hemorrhagic mediastinitis, causing bloody fluid to accumulate in the chest cavity, therefore causing shortness of breath.
- The first stage causes cold and flu-like symptoms. Symptoms include fever, shortness of breath, cough, fatigue, and chills. This can last hours to days. Often, many fatalities from inhalational anthrax are when the first stage is mistaken for the cold or flu and the victim does not seek treatment until the second stage, which is 90% fatal.

Anthrax

- The second (pneumonia) stage occurs when the infection spreads from the lymph nodes to the lungs. Symptoms of the second stage develop suddenly after hours or days of the first stage. Symptoms include high fever, extreme shortness of breath, shock, and rapid death within 48 hours in fatal cases.
- Historical mortality rates were over 85%, but when treated early (seen in the 2001 anthrax attacks), observed case fatality rate dropped to 45%. Distinguishing pulmonary anthrax from more common causes of respiratory illness is essential to avoiding delays in diagnosis and thereby improving outcomes. An algorithm for this purpose has been developed.

Airborne exposure

- **Chickenpox**, also known as **varicella**, is a highly contagious disease caused by the initial infection with varicella zoster virus (VZV). The disease results in a characteristic skin rash that forms small, itchy blisters, which eventually scab over. It usually starts on the chest, back, and face then spreads to the rest of the body. Other symptoms may include fever, tiredness, and headaches. Symptoms usually last five to seven days. Complications may occasionally include pneumonia, inflammation of the brain and bacterial skin infections. The disease is often more severe in adults than in children. Symptoms begin 10 to 21 days after exposure to the virus.
- Chickenpox is an airborne disease which spreads easily through the coughs and sneezes of an infected person. It may be spread from one to two days before the rash appears until all lesions have crusted over. It may also spread through contact with the blisters.
- Those with shingles may spread chickenpox to those who are not immune through contact with the blisters. The disease can usually be diagnosed based on the presenting symptom; however, in unusual cases it may be confirmed by polymerase chain reaction (PCR) testing of the blister fluid or scabs.
- Testing for antibodies may be done to determine if a person is or is not immune. People usually only get chickenpox once. Although reinfections by the virus occur, these reinfections usually do not cause any symptoms.

Chickenpox

- Since its introduction in 1995, the varicella vaccine has resulted in a decrease in the number of cases and complications from the disease. It protects about 70 to 90 percent of people from disease with a greater benefit for severe disease. Routine immunization of children is recommended in many countries. Immunization within three days of exposure may improve outcomes in children. Treatment of those infected may include calamine lotion to help with itching, keeping the fingernails short to decrease injury from scratching, and the use of paracetamol (acetaminophen) to help with fevers. For those at increased risk of complications, antiviral medication such as Aciclovir are recommended.
- Chickenpox occurs in all parts of the world. In 2013 there were 140 million cases of chickenpox and herpes zoster worldwide. Before routine immunization the number of cases occurring each year was similar to the number of people born. Since immunization the number of infections in the United States has decreased nearly 90%. In 2015 chickenpox resulted in 6,400 deaths globally – down from 8,900 in 1990. Death occurs in about 1 per 60,000 cases. Chickenpox was not separated from smallpox until the late 19th century. In 1888 its connection to shingles was determined. The first documented use of the term *chicken pox* was in 1658. Various explanations have been suggested for the use of "chicken" in the name, one being the relative mildness of the disease.

Measles

- **Measles** is a highly contagious infectious disease caused by the measles virus. Symptoms usually develop 10–12 days after exposure to an infected person and last 7–10 days. Initial symptoms typically include fever, often greater than 40 °C (104.0 °F), cough, runny nose, and inflamed eyes. Small white spots known as Koplik's spots may form inside the mouth two or three days after the start of symptoms. A red, flat rash which usually starts on the face and then spreads to the rest of the body typically begins three to five days after the start of symptoms. Complications occur in about 30% of cases and may include diarrhea, blindness, inflammation of the brain, and pneumonia, among others.
- Rubella, which is sometimes called German measles, and roseola are different diseases caused by unrelated viruses.

Airborne exposure

- Measles is an airborne disease which spreads easily through the coughs and sneezes of infected people. It may also be spread through contact with saliva or nasal secretions. Nine out of ten people who are not immune and share living space with an infected person will catch it. People are infectious to others from four days before to four days after the start of the rash. Most people do not get the disease more than once. Testing for the measles virus in suspected cases is important for public health efforts.

Measles

- The measles vaccine is effective at preventing the disease, and is often delivered in combination with other vaccines. Vaccination has resulted in a 75% decrease in deaths from measles between 2000 and 2013, with about 85% of children worldwide being currently vaccinated. Once a person has become infected, no specific treatment is available, but supportive care may improve outcomes. This may include giving oral rehydration solution (slightly sweet and salty fluids), healthy food, and medications to control the fever. Antibiotics may be used if a secondary bacterial infection such as pneumonia occurs. Vitamin A supplementation is also recommended in the developing world.
- Measles affects about 20 million people a year, primarily in the developing areas of Africa and Asia. No other vaccine-preventable disease causes as many deaths. In 1980, 2.6 million people died of it, and in 1990, 545,000 died; by 2014, global vaccination programs had reduced the number of deaths from measles to 73,000. The risk of death among those infected is usually 0.2%, but may be up to 10% in people with malnutrition. Most of those who die from the infection are less than five years old. Measles is not believed to affect other animals. Before immunization in the United States, between three and four million cases occurred each year. As a result of widespread vaccination, the disease was declared eliminated from the Americas in 2016. It, however, occurred again in 2017 and 2018 in this region.

Emerging infectious diseases(eid)

- AN INFECTIOUS DISEASE FOR WHICH INCIDENCE IN HUMANS HAS INCREASED IN THE PAST TWO DECADES OR THREATENS TO INCREASE IN THE NEAR FUTURE
- MOST RECENT EXAMPLE IS EBOLA VIRAL DISEASE (EVD)
- Eid's that meet the Maryland protocol will be posted on the miemss website under the infectious disease tab

Eid's signs & symptoms

- Travel history or exposure and set of signs & symptoms included in the case definition
- Respiratory congestion, sneezing/coughing, nausea/vomiting
- Skin rashes, hives or “poxes”, swollen lymph nodes, general malaise
- Loss of appetite
- Hemorrhage from mucosal membranes
- Descending neurological deficits

Eid's modes of transmission

- Direct transmission
 - Direct contact
 - Droplet spread
- Indirect transmission
 - Airborne
 - Vehicles that may indirectly transmit (bedding, medical equipment)
 - Vectors (mosquitoes, fleas and ticks)

Transport of pui patients

- Pui's at residence should be transported directly to an assessment hospital if total transport time is less than 45 minutes
- If transport time is longer than 45 minutes then transport to nearest frontline hospital
- Ems providers must contact the receiving hospital via emrc prior to beginning the transport and enter entrance designated by receiving hospital
- Term "pui" must be used

Patients under investigation (pui)

- Transport to appropriate hospital
 - Frontline hospital
 - Assessment hospital
 - Treatment hospital

Transport of pui patients

- Frontline hospitals
 - All hospitals with emergency departments must have the capability to accept, identify, and isolate a pui for a designated eid
- Assessment hospitals
 - Has capability to receive, isolate and provide care while testing is completed to confirm or deny diagnosis of suspected eid
- Treatment hospitals
 - Capability to admit and provide comprehensive care

pui patients that refuse transport

- Remove yourself immediately from presence of the patient
- contact local health department and provide as much of the following information that is available
 - Full name, age, gender
 - Home address, contact phone numbers, current location
 - Recent travel history
 - Signs & symptoms being displayed
 - Recent contact history with Ebola patients

Reminder of other possible exposures

Influenza

Head Lice

Herpes Zoster (Shingles)

Pertussis

Staphylococcus Aureus

MRSA

Streptococcus Pyogenes

C-Diff

Scabies



Controlling Exposures

Observe standard precautions, such as:

- Treating all blood and bodily fluids as if they are contaminated
- Proper cleanup and decontamination



Exposure

- In most work 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. For example, if someone infected with HBV cut their finger on a piece of glass, and then you cut yourself on the now infected piece of glass, it is possible that you could contract the disease. Anytime there is blood-to-blood contact with infected blood or body fluids, there is a slight potential for transmission.

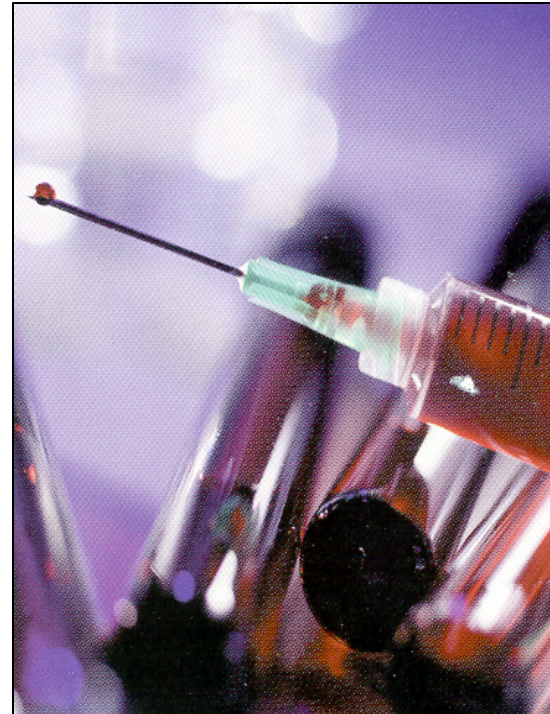
Exposure

- Unbroken skin forms an impervious barrier against bloodborne pathogens. However, infected blood can enter your system through:
 - Open sores
 - Cuts
 - Abrasions
 - Acne
 - Any sort of damaged or broken skin such as sunburn or blisters
- Bloodborne pathogens may also be transmitted through the mucous membranes of the eyes, nose and mouth.
- For example, a splash of contaminated blood to your eye, nose, or mouth could result in transmission.

Exposure

How exposure occurs:

- Needle sticks
- Cuts from other contaminated sharps
- Contact of mucous membrane or broken skin with contaminated blood or OPIM



Controlling Exposures – Daily care

- Sweep rear (patient) compartment floor and clean using soap and hot water solution
- Follow directions (including required “wet time”) on cleaning/disinfectant agent (CaviCide or other agent provided by Supply for this purpose) product label and clean/disinfect the following in the rear (patient) compartment:
 - ❖ Stretcher, including straps
 - ❖ Seat belts
 - ❖ Walls and doors, including door handles
 - ❖ All other interior compartment surfaces, including all horizontal surfaces.
 - ❖ All equipment (including but not limited to monitors, monitor leads, suction unit, glucometers, finger probes, stethoscopes, BP cuffs, etc.)

Controlling Exposures with disinfectants

- **“What does OSHA currently accept as "appropriate" disinfectants to prevent the spread of HIV and HBV?”**
- A review of the initial intent of the Bloodborne Pathogens Standard that specifically deals with the cleaning of contaminated work surfaces, i.e., 1910.1030(d)(4)(ii)(A), reveals that OSHA intended to provide a performance-based provision that would allow for future development of "appropriate disinfectant" products. OSHA has reviewed the information on the disinfectants and has reconsidered its position on EPA-registered disinfectants that are labeled as effective against HBV and HIV. OSHA's current stance is that EPA-registered disinfectants for HIV and HBV meet the requirement in the standard and are "appropriate" disinfectants to clean contaminated surfaces, provided such surfaces have not become contaminated with agent(s) or volumes of or concentrations of agent(s) for which higher level disinfection is recommended.

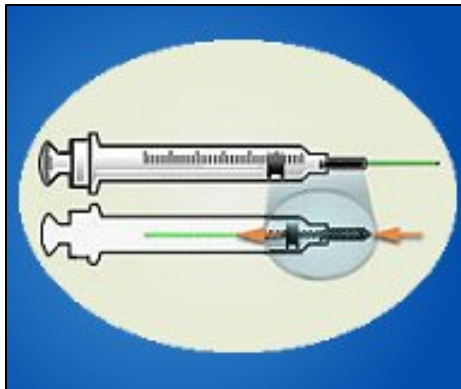
Controlling Exposures – Daily care

- It is important to emphasize the EPA-approved label section titled "SPECIAL INSTRUCTIONS FOR CLEANING AND DECONTAMINATION AGAINST HIV-1 AND HBV Of SURFACES\OBJECTS SOILED WITH BLOOD\BODY FLUIDS." On the labels that OSHA has seen, these instructions require:
 1. personal protection devices for the worker performing the task;
 2. that all the blood must be cleaned thoroughly before applying the disinfectant;
 3. that the disposal of the infectious waste is in accordance with federal, state, or local regulations; and
 4. that the surface is left wet with the disinfectant for 30 seconds for HIV-1 and 10 minutes for HBV.“(OSHA: <https://www.osha.gov/html/faq-bbp.html>)

Controlling Exposures

Engineering and work practice controls:

- Safer medical devices
- Sharps disposal containers
- Hand hygiene



Controlling Exposures

1. Cleaning:

the physical removal of obvious dirt, dust, and debris...It is the necessary first step

2. Decontamination:

the most common type of cleaning that happens in EMS. This process removes most disease-producing organisms to make equipment safe for handling. limited effectiveness against more serious pathogens.

3. Disinfection:

destroys nearly all disease producing organisms, however it does not work on bacterial spores.

Spores are bacteria that have protection against extreme types of environments and can become activated in the right setting.

4. Sterilization:

the complete elimination of microbial life. Expensive and time consuming... typically not used in EMS.

Controlling Exposures

Some general PPE Guidelines include, but not limited to:

- Wear gloves, when handling chemicals and/or body fluids.
- Wear safety shoes/boots/covers if hazardous substance is likely to splash.
- Wear an apron/gown/coveralls- if hazardous substance is likely to splash.
- Use a respirator: when hazardous substance is airborne such as tuberculosis.
- Remove PPE carefully to avoid contaminating yourself.
- Dispose of PPE in designated containers before leaving area.

Controlling Exposures

CCVESA responsibilities:

- Perform hazard assessment
- Identify and provide appropriate PPE to employee at no cost
- Train employees on use and care
- Maintain/replace PPE
- Review, update, evaluate PPE program

Controlling Exposures

Employee's responsibilities:

- Properly wear PPE
- Attend training
- Care for, clean, and maintain
- Notify when repairs/replacement needed

Controlling Exposures

Clean-up and decontamination:

- Wear protective gloves
- Use appropriate disinfectant
- Clean and disinfect contaminated equipment and work surfaces
- Thoroughly wash up immediately after exposure
- Properly dispose of contaminated PPE, towels, rags, etc.

Exposures Care

1. If actual exposure did occur
 - A. Clean, irrigate and dress area as appropriate
 - B. Allow puncture wounds to bleed
 - C. Irrigate mucus membranes copiously with water – Ringers Lactate Iv Solution can be used if Water is not available.
 - D. When you reach the destination hospital or specialty center, Advise Emergency Department Charge Nurse immediately that there has been an exposure and you would like the source patient's blood tested.
2. Immediately contact your company infection control officer(CICO).
 - A. Who is it?
 - B. Who is their back-up?
3. You need to contact the CICO immediately. Tell them what happened.
 - A. Needle Stick...
 - B. Bodily Fluid on Open skin or Mucous Membrane...
 - C. Wait for instructions CICO will need to activate County Exposure Protocol

When Exposure Occurs

Exposure incident:

- Specific eye, mouth, or other mucous membrane, non-intact skin, parenteral contact with blood or OPIM that results from the performance of an employee's duties.



When Exposure Occurs

- If the exposure is the result of a needle stick or cut, encourage bleeding and wash immediately with soap and water.
- The employee/volunteer must immediately report the exposure incident to the supervisor. (Time is of the essence. Results can often be improved by prompt action.) The supervisor will immediately refer the potentially exposed individual to the appropriate healthcare professional for post exposure and evaluation who in turn will evaluate and treat the individual based on guidelines set forth in OSHA's bloodborne pathogen standard.

Post Exposure follow-up

- Treatment for Providers' possible BBP exposure
 - ✓ Prompt evaluation and treatment
 - ✓ Source patient blood testing
 - ✓ Post exposure prophylaxis (PEP) antiviral medications if indicated
 - ✓ Baseline and serial blood tests for six months after the exposure for our provider
 - ✓ Any other appropriate support, counseling or treatment
- The exposed provider must complete the exposure survey provided by the CCVESA ECO
 - required by federal regulation
- If treatment with HIV PEP antiviral medications is indicated following an exposure, they should be started as soon as possible... "within hours" according to the CDC.
- All Carroll County EMS providers with suspected BBP exposure will receive initial treatment and evaluation at Carroll Hospital Center
 - This applies only to BBP exposures
- The CICO and CCVESA – ECO will confer with the Exposure Control Officer and provide guidance on each individual situation

CCVESA

Post exposure evaluation

- Conducted by CICO and CCVESA ECO.
- reviews the circumstances of all exposure incidents to determine:
 - ❖ Engineering controls in use at the time
 - ❖ Work practices followed
 - ❖ Description of the device being used (including type and brand)
 - ❖ Employee training level
 - ❖ Time, date and location
 - ❖ Circumstances of the incident
 - ❖ What could be done to prevent future exposures

CCVESA Post exposure documentation

- Exposed employee must complete a CCVESA Exposure Survey Form (a copy is found in course materials)
- The completed CCVESA exposure survey form must be turned into the company exposure officer, who will send a copy of this completed form to the CCVESA exposure control officer
- Exposed employee will complete any Exposure forms required at any post exposure follow-up facility.
- Exposed employee must complete a station's "First Report of Injury"
- Workers Compensation First Report of Injury/ Illness Form must be completed and submitted by the appropriate member company personnel



CCVESA Exposure Control Officer (ECO)

1. The CICO will contact the ECO and await instructions for the exposed employee.
2. The CCVESA Exposure Control Officer or designee will contact
 - A. Receiving Facility
 - ✓ Confirm Source Blood is being drawn and advise where results should be sent
 - B. Carroll Hospital Center (CHC)
 - C. Carroll Occupational Health (COH)
 - D. Carroll County Health Department (CCHD)
3. Report back to the CICO the follow up procedures and make sure notifications for health evaluation are made.
4. Primary location for Health evaluation is COH, if after hours the employee will be directed to CHC.

- Inform that the COH or CHC Health care professional evaluating the employee after an exposure incident receives:
- ✓ Description of volunteer's or employee's job duties relevant to the exposure incident
 - ✓ Route(s) of exposure
 - ✓ Circumstances of exposure
 - ✓ If possible, results of source individual's blood test
 - ✓ Relevant volunteer/employee medical records, including vaccination status

Post Exposure follow-up

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Post Exposure follow-up

- Confidential medical evaluation and follow-up
 - Route(s) of exposure and circumstances
 - Source individual
 - Collect/test blood for HBV and HIV serological status
 - Post exposure prophylaxis
(when medically indicated)
 - Counseling
 - Evaluation

**Your time and attention during
this training program has been
appreciated.**

**If you have any questions,
comments, or concerns
concerning bloodborne
pathogens please contact the
CCVESA Exposure Control
Officer.**