Blood borne Pathogens

Employee training required by OSHA (29 CFR 1910.1030)

Applies to employees in all industries who may be exposed to blood or other potentially infectious materials

Training is administered at the time of initial employment, upon job reassignment when there is deemed exposure potential, and annually thereafter.
Who Must be Trained?

Any employee who is reasonably anticipated to come in contact with blood or OPIM in the course of their job duties

- Includes employees who administer First Aid/CPR
- Good Samaritan Exclusion
What are Blood borne Pathogens?

Pathogenic microorganisms that are present in human blood and can cause disease in humans.
Includes semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids.
OPIM

Other Potentially Infectious Material

Also includes any unfixed tissue or organ (other than intact skin) from a human (living or dead); and HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV
Major Blood borne Pathogens

- HIV
- HEPATITIS B (HBV)
- HEPATITIS C (HCV)
HIV

In 2013, an estimated 47,165 people in the United States were diagnosed with HIV, the virus that causes AIDS. About 1 in 6 people with HIV in the United States do not know that they are infected.

In 2013, an estimated 839 adults and adolescents were diagnosed with HIV in Tennessee. Tennessee ranked 15th among the 50 states in the number of HIV diagnoses in 2013.
Hepatitis

Approximately 4.4 million people in the US are estimated to be living with HBV and HCV infection; most do not know they are infected.

In Tennessee, between 2009 and 2013:

- Reported rates of acute hepatitis B increased by 82%.
- Reported rates of acute hepatitis C increased by 200%.
- Reported rates of acute hepatitis A increased by 100%.
HIV
Human Immunodeficiency Virus (HIV)

- Causes the Acquired Immunodeficiency Syndrome (AIDS)
- Present in blood and OPIM
- Chance of infection is 1:30
- No vaccine available
- Treatments available
Hepatitis B Virus

HBV is found in all blood and body fluids

- Can survive in dried blood for up to 10 days
- Chance of infection is 1:3
- Symptoms include jaundice, fatigue, flu-like symptoms
- Can lead to chronic liver disease
- Vaccination available
Hepatitis C Virus

HCV found only in blood

- Most chronic blood borne infection
- Symptoms include jaundice, fatigue, flu-like symptoms, alcohol intolerance
- No vaccine available
  - New treatments available
Routes of Entry

Transmission most common through:

- Needle sticks
- Contact with mucous membranes
- Break in skin
  - Need not be large
Universal Precautions

Treat all blood and body fluids as if they are infectious!
What is an Exposure Control Plan (ECP)?

- Determination of potential exposure
- Safe work practices
- Proper decontamination techniques
- Selection and usage of PPE
- Handling of biological materials/wastes
- Labeling and signage
- Training requirements
- Recordkeeping requirements
The Walters State Health & Safety Manual contains the exposure control plan

Engineering and Work Practice Controls

These are the primary methods used to control the transmission of blood borne pathogens from blood or OPIM as a result of splashing, spraying, and aerosolization.
These controls reduce employee exposure by removing the hazard.

Examples:

- Sharps disposal containers
Workplace Control

These precautions/controls reduce the likelihood of exposure by altering how a task is performed.

- Housekeeping Precautions
- Laundry Precautions
- First-Aid Precautions
Housekeeping Precautions

Wear gloves and protective eyewear:

- When you clean surfaces that may be soiled with body fluids or excretions
- When you clean toilets and sinks
- When you handle trash

When emptying trash watch for:

- Sharp objects
- Broken glassware
- Used syringes
Housekeeping Precautions
To prevent contamination:

- Use a device such as dustpan and broom to pick up sharp objects
- Place sharp objects in labeled sharps container
- Place all contaminated waste in red biohazard bags within a secondary container
- Wash hands as soon as possible after contamination and after removing gloves
- Do not handle items such as pens or door handles while wearing gloves
- Clean and decontaminate equipment and surfaces that had contact with infectious materials
Laundry Precautions

- Wear gloves and other PPE to handle contaminated laundry
- Contaminated clothing must not be taken home by employees for laundering
- Contaminated laundry shall be handled as little as possible with minimum agitation and placed in appropriately labeled red bags
- Carry the laundry bag from the top
  - Do not wrap your arms around it
  - Do not hold it against your body
  - Do not place your hand underneath the bag to support it
First-Aid Precautions

To protect yourself during an injury or accident:

● Protect yourself before offering assistance
● Wear clean, leak-proof disposable gloves
  ● Be aware of personal cuts or broken skin before donning gloves
  ● If no gloves are available, try to have co-worker self administer first-aid
  ● Do not be careless about treating a co-worker’s bleeding injury
● If blood is spraying, protect your eyes nose and mouth with goggles and a mask
● Keep blood off of you while you control bleeding.
  ● Treat all contact with blood or bodily fluids as if it is pathogenic
● Comfort the Victim and wait for trained emergency responders
Protective Clothing or Equipment

When occupational exposure remains after engineering and work practice controls are put in place, personal protective equipment (PPE) is the last line of defense

- Specialized clothing or equipment worn by an employee for protection against infectious materials
- Must be provided, properly cleaned, laundered, repaired, and disposed of at no cost to employees
- Must be removed when leaving area or upon contamination
Examples of PPE

- Gloves – replace immediately when visibly soiled, torn, cut, or punctured; not be worn outside contaminated areas

- Protective clothing/Footwear – shall be worn as an effective barrier against blood and OPIM

- Face shields and eye protection – shall be worn whenever splashes, spray, spatter, droplets, or aerosols may be generated causing eye, nose, mouth contamination
PPE

Personal Protective Equipment Includes:

- Safety glasses/goggles/face shield
- Gloves
  - Nitrile vs. latex
  - Disposable vs. reusable
- Face masks
- Aprons

Improvise when needed!
Safer Work Practices

- Proper removal of PPE and/or contaminated clothing
- Proper disinfection
- Proper hand washing techniques
  - Sanitizers as interim measure
- Proper disposal of contaminated items
Decontamination

- Wear proper PPE (gloves and glasses)
- Use bleach or other disinfectant
  - Mix 1:10 bleach solution daily (1 cup of bleach in 9 cups of water)
- Cover with towels and apply disinfectant
  - Allow for saturation (at least 10 min)
- Properly dispose
  - Biohazard bag or sharps container
- Wash your hands!
Proper disposal of wastes is essential.

Custodial staff currently handle the disposal of these wastes at each campus location through contract with Stericycle.
Labeling and Signage

- Containers intended to ship, store bio hazardous materials
- Contaminated equipment
- Entrances to places containing blood or OPIM
- Laundry bags used to carry contaminated clothing
Hepatitis B Vaccination

- Must be offered to any employee deemed at risk for exposure
- Declination form
- No cost to employee
- Series of 3 shots
- This is currently administered through Human Resources.
Contact with skin:
- wash exposed areas with antibacterial soap and running water

Contact with eyes or mucous membranes:
- flush affected area with running water for at least 15 minutes

Contact with clothing:
- remove contaminated clothing, wash underlying skin

Report exposure to supervisor and CorVel immediately! Information will be recorded and tracked accordingly from there.
Post-exposure Evaluation

- Confidential medical evaluation
- Documentation of exposure
- Identification of source individual or material
- Testing of source blood or body fluid
- Results to exposed employee
- Any necessary follow-up treatment or training
  - HBV vaccination
Recordkeeping

- Medical records include:
  - Hepatitis B vaccination status
  - Declination form
  - Post-exposure evaluation and results

- Training records include:
  - Training dates
  - Content and material of training
  - Name and qualifications of the trainer

*Must be kept for duration of employment + 30 years*
Questions

- If you have any questions pertaining to the BBP Training, please feel free to contact any of the following:
  - Tammy Goode - Assistant Vice President Human Resources (423) 585-6845
  - Brian Hagenburger - Co-Coordinator Environmental Health & Safety (423) 585-6997
  - Jason Martin - Co-Coordinator Environmental Health & Safety (423) 585-6909
Blood borne pathogens (BBP) are microorganisms that are present in human blood and can cause disease in humans.

Major examples of BBP are HIV, Hepatitis B (HBV), & Hepatitis C (HCV).

Universal Precaution require us to treat all blood and body fluids as if they are infectious.

Our exposure control plan is documented in the Walters State Community College Health & Safety Manual. A link to it is on the Facilities Management Website.

All at risk employees are offered the Hepatitis B Vaccination or have a Declination form. This is administered through the office of Human Resources.

Employees must report exposure incidents with supervision. This enables proper follow up, recording, and tracking.

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