OVERVIEW

THIS TRAINING WILL COVER:
- THE OSHA BLOODBORNE PATHOGEN STANDARD (29 CFR 1910.1310)
Bloodborne Pathogens

29 CFR 1910.1310
WHAT ARE BLOODBORNE PATHOGENS (BBP)?

• Virus, bacteria, and other disease-causing microorganisms that may be present in human blood or body fluids.

• The most common BBP’s are:
  • Hepatitis B
  • Hepatitis C
  • Human Immunodeficiency Virus (HIV)
HOW MIGHT YOU COME INTO CONTACT WITH BLOODBORNE PATHOGENS?

- Direct contact
- Indirect contact
- Droplet transmission
- Blood transfusion
- Needlesticks or sharp instrument exposures
- **Not** transmitted through casual contact
Chain of Transmission

- Infectious Agent
- Susceptible Host
- Portal of Entry
- Mode of Transmission
- Reservoir
- Portal of Exit

Chain of infection
HEPATITIS B VIRUS (HBV)

- Hepatitis B can be contracted by touching contaminated environmental surfaces where the virus has been shown to live for as long as four weeks.

- Hepatitis B is highly contagious and easily spread.

- Immunization is the most effective way of preventing HBV transmission.

http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5011a1.htm
Hepatitis B Symptoms

- About 30% of persons have no signs or symptoms.
- Signs and symptoms are less common in children than adults.
- Common symptoms include:
  - jaundice
  - fatigue
  - abdominal pain
  - loss of appetite
  - nausea and vomiting
  - joint pain
Hepatitis C is spread through:

- sharing needles/syringes,
- needlesticks or sharps exposures on the job, or
- from an infected mother to her baby during birth
- sexual contact

- Studies show that HCV can be infectious after 6 weeks at room temperature.
- No immunization available.
- HCV rates have tripled in the past 5 years due to increases in opioid use.
70%-80% of persons have no signs or symptoms.

Some have mild to severe symptoms, including:

- Fever
- Jaundice
- Fatigue
- Dark urine
- Abdominal Pain
- Loss of Appetite
- Nausea
- Joint pain
HIV is spread by:

- sexual contact with an infected person,
- sharing needles/syringes,
- needlesticks or sharps exposures on the job and other percutaneous exposures
- Babies born to HIV-infected women may become infected before or during birth or through breast-feeding after birth.
- Less commonly (and now very rarely in countries where blood is screened for HIV antibodies), through transfusions of infected blood or blood clotting factors.

CDC estimates that there are 1.1 million people in the U.S. are infected.

15% of people infected are unaware.
Many people do not have any symptoms when they first become infected with HIV, others may develop a flu-like illness within a month or two after exposure to the virus.

These symptoms usually disappear within a week to a month and are often mistaken for those of another viral infection. During this period, people are very infectious, and HIV is present in large quantities in genital fluids.
HOW CAN YOU GET EXPOSED TO BLOODBORNE PATHOGENS?

- Anytime you come into contact with blood or potentially infectious body fluids.

- This includes:
  - Needlesticks, puncture wounds, or cuts from contaminated items.
  - Contact of eyes, nose, mouth, or broken skin with blood or body fluids.
  - Bites or Cuts
  - Splashes, splatters or spills
HOW CAN YOU CONTROL EXPOSURES TO BLOODBORNE PATHOGENS?

- Standard Precautions
- Work Practice Controls
- Engineering Controls
- Personal Protective Equipment (PPE)
- Environmental Infection Control: housekeeping, clinical contact surfaces, regulated waste disposal.
STANDARD PRECAUTIONS

- Set of infection control practices used to prevent the transmission of diseases that can be acquired by contact with blood, body fluids, non intact skin, and mucous membranes.

- Treat all human blood and other potentially infectious material (OPIM) as infectious.

- Most important measure to control transmission.

- Blood and saliva are considered potentially infectious materials.
These are the specific on the job procedures that must be followed to reduce the risk of exposure to blood or other potentially infectious materials.

Examples: Proper disposal of sharps and needles, handwashing, proper carrying of contaminated instruments, and requiring HBV vaccination.
HAND WASHING IS THE MOST IMPORTANT WORK PRACTICE CONTROL!

- CDC states that proper hand washing is the easiest way to prevent the spread of infections.
Engineering Controls

- These are equipment or devices that are used to isolate and/or prevent injuries.

- Can be paired with work practice controls to augment risk reduction.

- Continually reviewed to determine if better options are available.

- Examples: One-handed needle recapping devices and puncture-resistant sharps containers.
PERSONAL PROTECTIVE EQUIPMENT (PPE)

- Specialized clothing or equipment that protect the skin, mucous membranes of the eyes, nose, and mouth from exposure to infectious or potentially infectious materials.
- Employees must use appropriate PPE whenever there is a risk of an occupational exposure.
- PPE is selected based upon the type of exposure that is anticipated.
- Should be inspected prior to use and replaced if damaged.
EXAMPLES OF PERSONAL PROTECT EQUIPMENT (PPE)

- Gloves
- Surgical mask
- Long-sleeved protective clothing (long-sleeved lab coat, disposable gown)
- Protective eyewear with SOLID SIDE SHIELDS
- Chin-length face shield worn with a surgical mask

Always remove PPE prior to leaving work area and immediately if penetrated by blood or other potentially infectious material.
Employer must ensure clean/sanitary workplace.

Work surfaces, equipment, and other reusable items must be decontaminated upon completion of procedure when contaminated with blood or other potentially infectious material.

Barriers protecting surfaces/equipment must be replaced when contaminated, between patients, and/or at the end of the work shift.

Reusable receptacles (bins, pails, cans)
  - Must be inspected/decontaminated on a regular basis and when visibly soiled.

Picking up broken glass
  - Not picked up by hands
  - Mechanical means only

Written schedule for cleaning and decontamination.
WHAT IS REGULATED WASTE?

- Liquid or semi-liquid blood or other potentially infectious materials.
- Items coated with dried blood or other potentially infectious materials and are capable of releasing these materials during handling.
- Contaminated sharps (for example: needles, blades, broken tubes, glass).
- Pathological and microbiological waste containing blood or other potentially infectious material.
WHAT SHOULD YOU KNOW ABOUT THE DISPOSAL OF REGULATED WASTE?

Regulated waste requires disposal in a biohazard container appropriate for the specific type of waste:

- Sharps containers (needles, scalpels, lancets, broken glass)
- Biohazard labeled bags or containers (saturated dressings/gauze; grossly contaminated gloves)
- Regulated waste is required to be pick-up by a medical waste disposal contractor.
Symbol accompanied by word **BIOHAZARD**

- Must be fluorescent orange, red or orange/red with lettering and symbols in contrasting colors.
- Red bags or containers may substitute for labels.
WHERE SHOULD I USE A BIOHAZARD LABEL?

- Sharps container
- Regulated waste container
- Contaminated laundry bags
- Refrigerators/freezers containing blood or OPIM
- Containers used to ship blood/OPIM
- Contaminated equipment
HOW CAN YOU PREVENT OCCUPATIONAL EXPOSURES?

- Promote hepatitis B vaccination
- Treat all blood as potentially infectious
- Use PPE & barriers to prevent blood contact
- Prevent percutaneous injuries
- Safely dispose of sharps and blood-contaminated materials
WHEN AN OCCUPATIONAL EXPOSURE OCCURS:

- Keep calm, stop the procedure **immediately** and notify your supervisor.
- Wash the affected area with soap and water or flush nose, eyes, or mouth with water.
- Follow the **Post-Exposure Protocol Flow Chart** that pertains to you.
- These are located in every clinic and on the intranet.

- **Immediate reporting is essential!**
- CDC recommends Post Exposure Prophylaxis therapy to be started within 1-2 hours after an occupational exposure if needed.
The Occupational Exposure Report must be filled out in a timely manner following every occupational exposure.

The report is located on the Intranet and will include:

- Date and time of exposure
- Procedure details...what, where, how, with what device
- Exposure details...route, body substance involved, volume/duration of contact
- Information about source person
- Information about the exposed person
- Exposure management details
Current Virginia State law allows that in the event of an exposure of a health care provider, the health care provider can request blood testing for HIV and HBV at no expense to the patient.
Hazard Communication Standard

29 CFR 1910.1200
Hazard Communication Standard

- Hazard Communication Standard says that you have a “Right-To-Know” what hazards you face on the job and how to protect yourself against those hazards.

- Its purpose is to ensure that employers and employees who work or may come into contact with any hazardous chemical is aware of the hazards and the necessary precautions.
EMPLOYER RESPONSIBILITIES

- Written Hazard Communication Program (HCP)
- Inventory of hazardous chemicals
- Ensure each container of hazardous chemical or dental material is labeled
- Maintain copies of Safety Data Sheets (SDS) and have readily available.
- Training of employees
An inventory of hazardous chemicals and dental materials should be organized in one of the following ways:
- Alphabetically
- Numerically
- By hazard category (i.e. corrosive, flammable, reactive, toxic)

Chemical inventories should be updated accordingly.

Consumer products used for their marketed purpose do not need to be listed. For example: Windex
REQUIREMENTS OF A GHS LABEL

- Symbol – pictogram
- Company name and information
- Signal Word
  - Danger (more severe)
  - Warning (less severe)
- Standard hazard statement
GLOBALLY HARMONIZED SYSTEM LABELING (GHS)

Pictograms are used to represent specific hazards that a chemical may present.
Hazardous Chemicals placed in a secondary container other than its original manufactured container **MUST** have a label placed on it that identifies:

- Product identifier
- Name of manufacturer
- Signal word, picture or statement of specific hazard
SAFETY DATA SHEETS (SDS)

- Documents developed by the manufacturer that contain information concerning a hazardous chemical.
- Must be provided to the buyer.
- Must have for each hazardous chemical.
- Should be readily accessible and in a consistent order.
- Online link is available on the Intranet.
Safety Data Sheets Section S

1. Identification
2. Hazard(s) identification
3. Composition/information on ingredients
4. First-aid measures
5. Fire-fighting measures
6. Accidental release measures
7. Handling and storage
8. Exposure controls/personal protection
9. Physical and chemical properties
10. Stability and reactivity
11. Toxicological information
12. Ecological information
13. Disposal considerations
14. Transport information
15. Regulatory information
16. Other information
WHAT TO DO IF YOU HAVE A CHEMICAL SPILL?

- Determine the hazard from the label.
- Secure the area.
- Wear appropriate Personal Protective Equipment (PPE).
- Contain and/or remove the hazard with a chemical spill kit.