Blood Borne Pathogens Training
For
School Personnel
OSHA Defined:

• Occupational Safety and Health Administration

• Published a standard to reduce or eliminate health risk, resulting in:
  – Annual training of employees
  – Safe workplace environment
  – Exposure Control Plans
Exposure Control Plan

• Defines who is at risk

• Outlines procedures to minimize or eliminate exposures to blood-borne diseases

• Procedures to follow in event of exposure
Who is covered?

• Anyone who can anticipate coming in contact with blood or body fluids while at work.
• The school system is required to identify personnel whose job duties may expose them to blood or body fluids.
• Everyone is required to receive information on the dangers of exposure.
Bloodborne Pathogens

What are they?

• Infectious materials in human blood and body fluids that can cause disease in humans.

• Exposure can result in serious illness or death.
Who is at risk?

- Anyone who comes in contact with human blood or body fluids.

- Anyone who touches potentially contaminated surfaces or equipment.
Workplace Transmission

- Blood
- Body Fluids containing visible blood
- Semen and vaginal secretions
- Torn or loose skin
Not infectious for bloodborne pathogens

- Feces
- Urine
- Tears
- Saliva

- Vomitus
- Sputum
- Sweat

** unless visible blood
Workplace Transmission

• Special-Education Area

- Special-Ed children:
  • More prone to injury
  • Likely to have special medical needs
  • Dependent on adults for their personal care
Workplace Transmission

• Accidental Injury
  – Broken Glass
  – Sharp metal
  – Needles
  – Knives
  – Orthodontic wires that are exposed
How do bloodborne pathogens enter your body?

• Indirect Transmission
  – Open cuts and nicks
  – Skin abrasions
  – Dermatitis
  – Acne
  – Mucous membranes of eyes, nose or mouth
Standard Precautions

- Treat all blood and body fluids as potentially infectious.
- Critical because it is impossible to tell who is infected with HBV or HIV by appearances.
- Many have no knowledge or symptoms of their disease.
Reducing Your Risk of Exposure

Personal protective equipment
  – Gloves, mask, gown, lab coat, face shield, protective eye wear
  – Should fit properly

• Engineering controls
• Housekeeping
• Hepatitis B vaccine
PPE Selection Based on Anticipated Exposure

- Gloves - any time contact with blood or other body fluids may occur
- Masks and eye protection - if there is any chance of splashing into the mouth nose or eyes
- Gowns/lab coats, shoe covers - risk of splattering or spilling on clothes or skin
Engineering Controls

• Devices that reduce employee risk by isolating or removing the hazard

Examples:
Sharps containers
Safety medical devices
Biosafety cabinets
Negative pressure rooms
Work Practice Controls

• Depends on you!
• Examples- proper handwashing, getting Hep B vaccine, proper handling of sharps, proper disposal of infectious waste, wearing appropriate PPE
Work Practice Controls

- Handwashing - Single most important means of preventing the spread of infection

* Use SOAP and WARM WATER (Lather 15 sec.)
* SCRUB your hands VERY WELL
* WASH Between Fingers, Wrists, Under Fingernails, Backs of Hands
* RINSE WELL
* DRY your hands with a paper towel

* Waterless hand cleaner - only if no soap and water available!
When to wash hands

- Before and after touching someone or something potentially infectious
- After removing gloves
- After handling potentially infectious material
- After using the bathroom
- Before eating, smoking, applying cosmetics, handling contact lens
Personal Hygiene

• Minimize spattering, spraying and splashing when attending to an injured person.
• Don’t eat, drink, smoke, apply cosmetics or lip balm or handle contacts where there is a risk for exposure.
• Don’t keep food and drink in refrigerators, freezers or countertops where blood or other infectious materials are present.
Biohazardous Waste Disposal

- Discard contaminated sharps in approved sharps containers
- Discard all other infectious material in red biohazard trash bags
- Picked up by biohazard waste technicians
- Incinerated
International Biohazardous Waste Symbol
Disinfect equipment and surfaces with approved disinfectant (Dispatch, 10% bleach solution, Saniwipes) when:

- Surfaces become contaminated
- At the end of the work shift
- After any spill of blood or other potentially infectious material (OPIM)
Blood or OPIM Spill Procedure

- Prevent accidental exposure to others
- Wear appropriate PPE
- Absorb spill (paper towels or biohazard spill kit)
- Spray Dispatch or bleach solution, set for 10 min. or air dry
- Dispose of all cleaning materials and PPE in biohazard trash bag
Bloodborne Pathogens of Concern

- Hepatitis B
- Hepatitis C
- HIV/AIDS
Hepatitis B

- Infection of the liver
- Can lead to cirrhosis, liver cancer and death
- 20% risk of infection with a contaminated sharp
- Virus can survive in dried blood up to 7 days
Symptoms of Hepatitis B

- Fatigue
- Loss of appetite, nausea
- Jaundice (yellowing of skin and eyes)
- Fever
- Abdominal pain, joint pain
- 30% have no symptoms
- Preventable
Hepatitis B Vaccine

- Recommended for all high risk groups
- Free- provided by employee health
- Safe
- 3 shots- initial, 1mo., 6mo.
- Life long immunity
- Decline- must sign OSHA waiver
Hepatitis C

- Most common chronic blood borne infection in US
- Causes liver damage, cirrhosis and liver cancer
- Leading reason for liver transplants
- 2% risk of infection by contaminated sharp
Symptoms of Hepatitis C

- Same as Hepatitis B
- May occur within 2 weeks to many years
- 85% don’t know they are infected
Hepatitis C Vaccine

• There is NO vaccine and NO cure for Hepatitis C!

• There are 50,000 needlesticks annually related to HCV infected patients
Major Risk Factors for Hepatitis B and C

- Sexual activity with multiple partners
- IV drug use
- Hep B - neonatal transmission
- Hep C - blood transfusion prior to 1990 - small risk - tattooing, body piercing, shared nasal cocaine
HIV/AIDS

- Attacks the body’s immune system
- Unable to fight off other infections
- No vaccine and no cure
- 6,000 new infections every day
Symptoms of HIV

- Mild flu-like symptoms initially (fever, swollen glands)
- May be free of symptoms for months to many years
- Eventually leads to AIDS and death
HIV Transmission

- High risk sexual activity and IV drug abuse account for 80%

- Neonatal

- Accidental occupational exposure
Chances of Infection

• If you are exposed to HIV infected blood/body fluids by:
  – A dirty needle/sharp: 3 in 1000 (0.3%)
  – Mucous membrane splash: 1 in 1000 (0.1%)
  – Non intact skin: 1 in 1000 (0.1%)
  – Prompt antiviral treatment after exposure can reduce risk of infection by 60 – 80%
Should we be concerned?

- NC rank by state:
  10th for new cases of HIV/AIDS
  12th for syphilis
  19th for Hep. B

Source: State Center for Health Statistics 2003
What if I am exposed?

- Wash with soap and water
- Splash to mucous membranes- rinse or flush with water for 15 min.
- Have source of infection remain available
Who needs to know?

Contact:

Principal
School Nurse
Human Resources Department

Follow guidelines found in your Exposure Control Plan
Post Exposure Follow Up

• Follow county’s policy for exposure

• Complete appropriate forms referenced in your counties exposure control plan

• Confidentiality is maintained
Bloodborne Pathogens for Schools

• As a school employee you must react to emergencies not only with your heart but with your head. Know the facts and take precautions to protect yourself. Students, co-workers and loved ones are counting on you!
References

• Coastal Training Technologies Corp, (2000). *Bloodborne Pathogens* (Brochure) Virginia Beach, VA
Questions?
See your School Nurse