Bloodborne Pathogens

September 2023

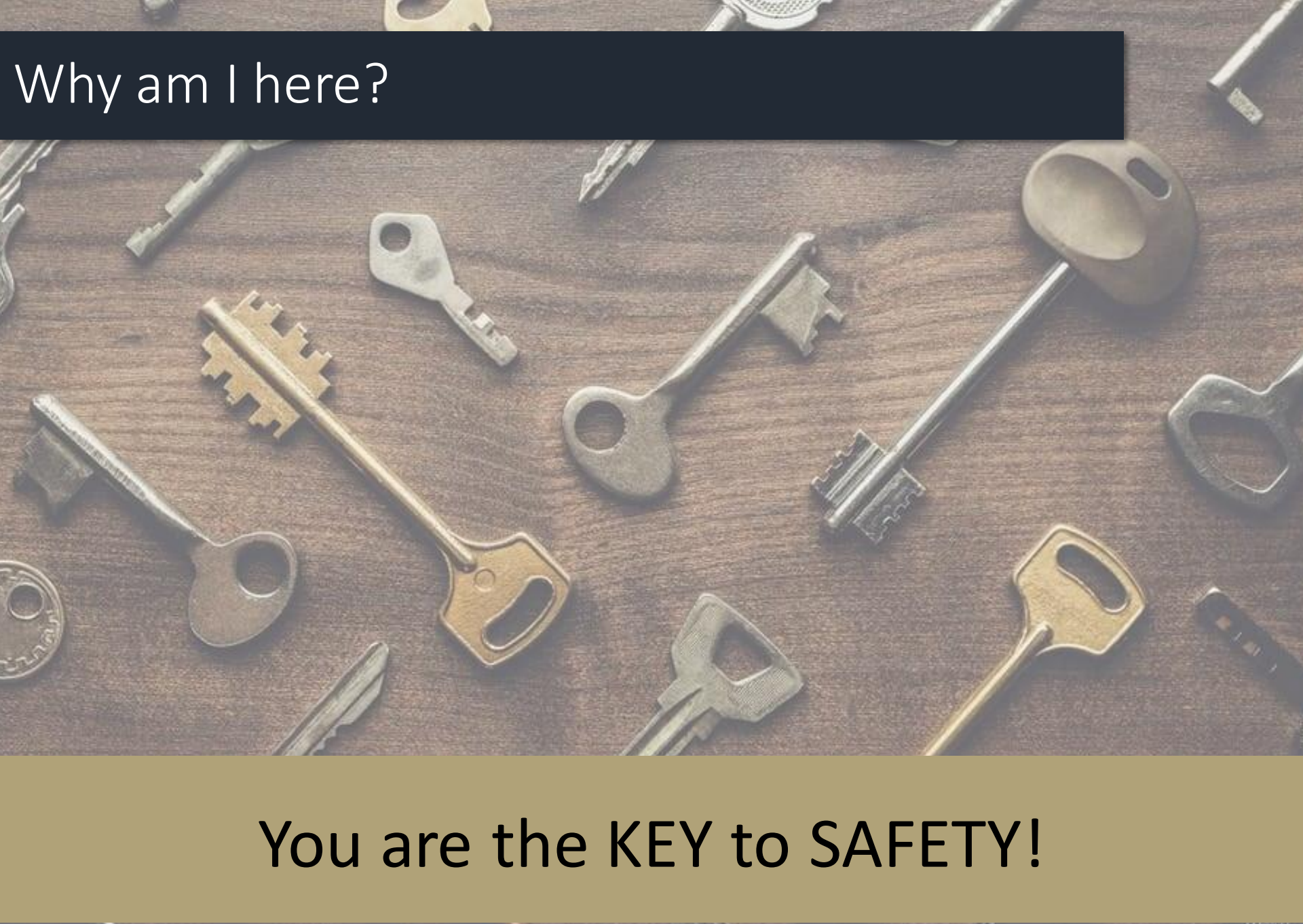
Housekeeping

Muster Point

Presenter & Introductions

Safety begins with me!

Why am I here?



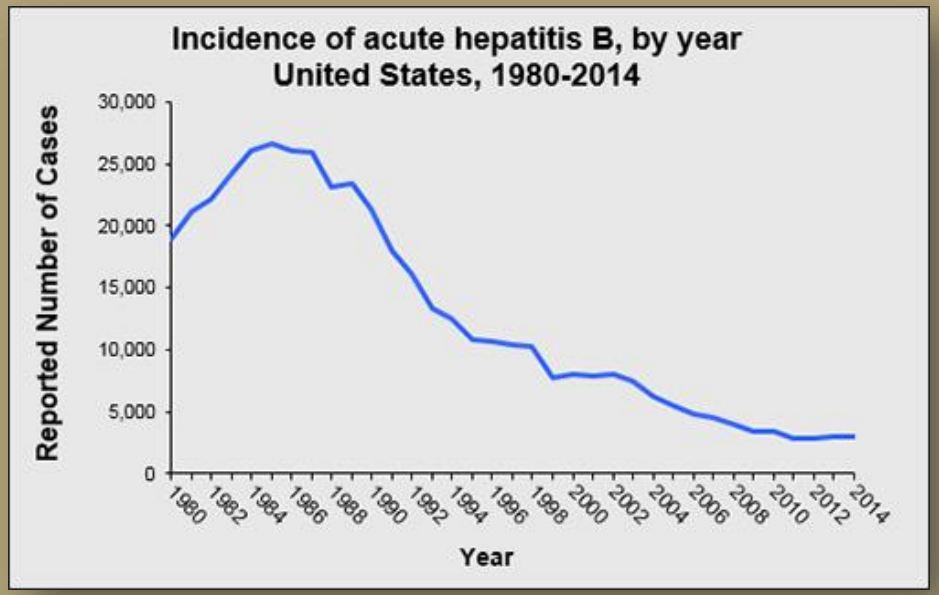
You are the KEY to SAFETY!

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)

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*

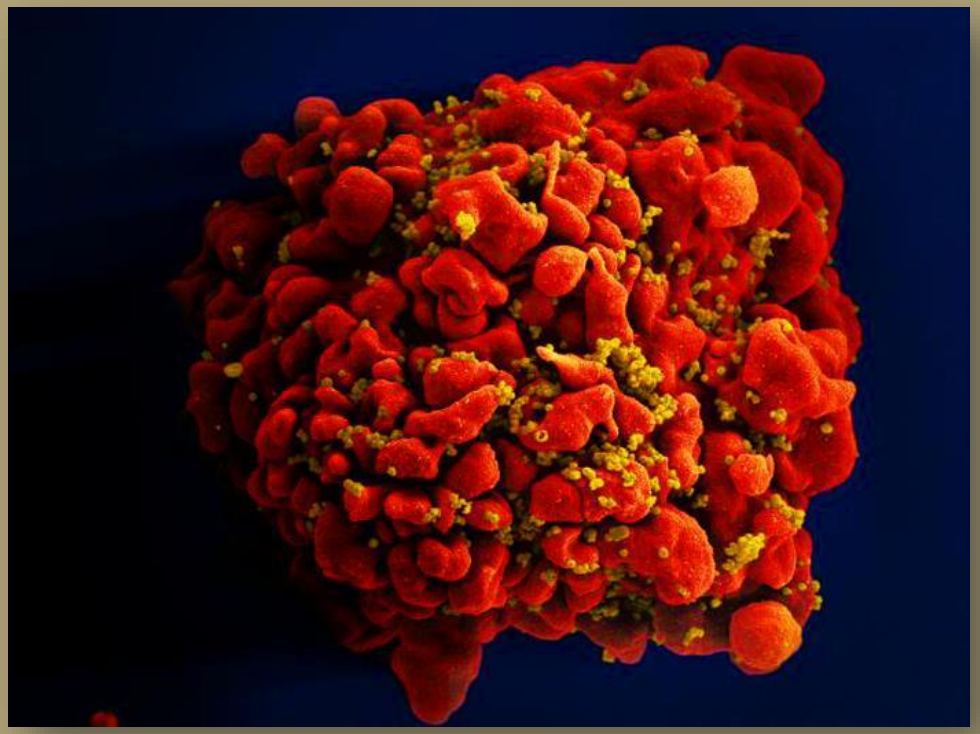


Hepatitis C (HCV)

- 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

Human Immunodeficiency Virus (HIV)

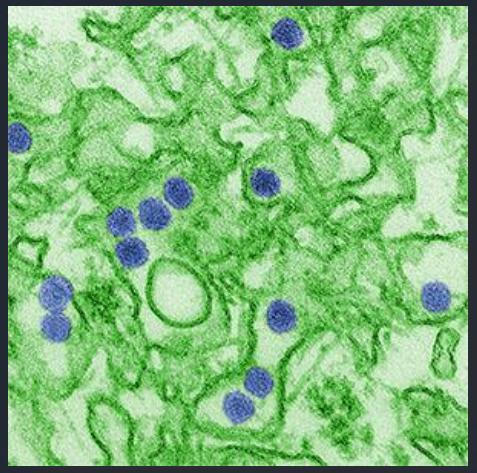
- HIV is the virus that leads to AIDS
- HIV affects the body's immune system
- HIV does not survive well outside the body
- Estimated >1.1 million people living with HIV
- Infected for life



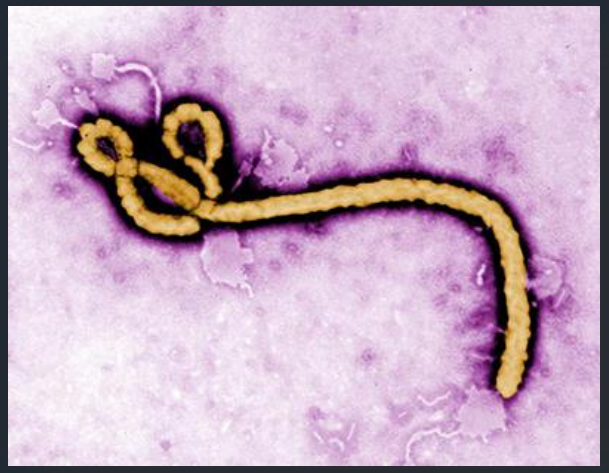
Single, red-colored H9-T cell infected by numerous mustard-colored HIV partides which are attached to the cell's surface membrane. Source: NIAID.

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.



Examples of Other Bloodborne Diseases

Risk of Exposure

Risk of Exposure

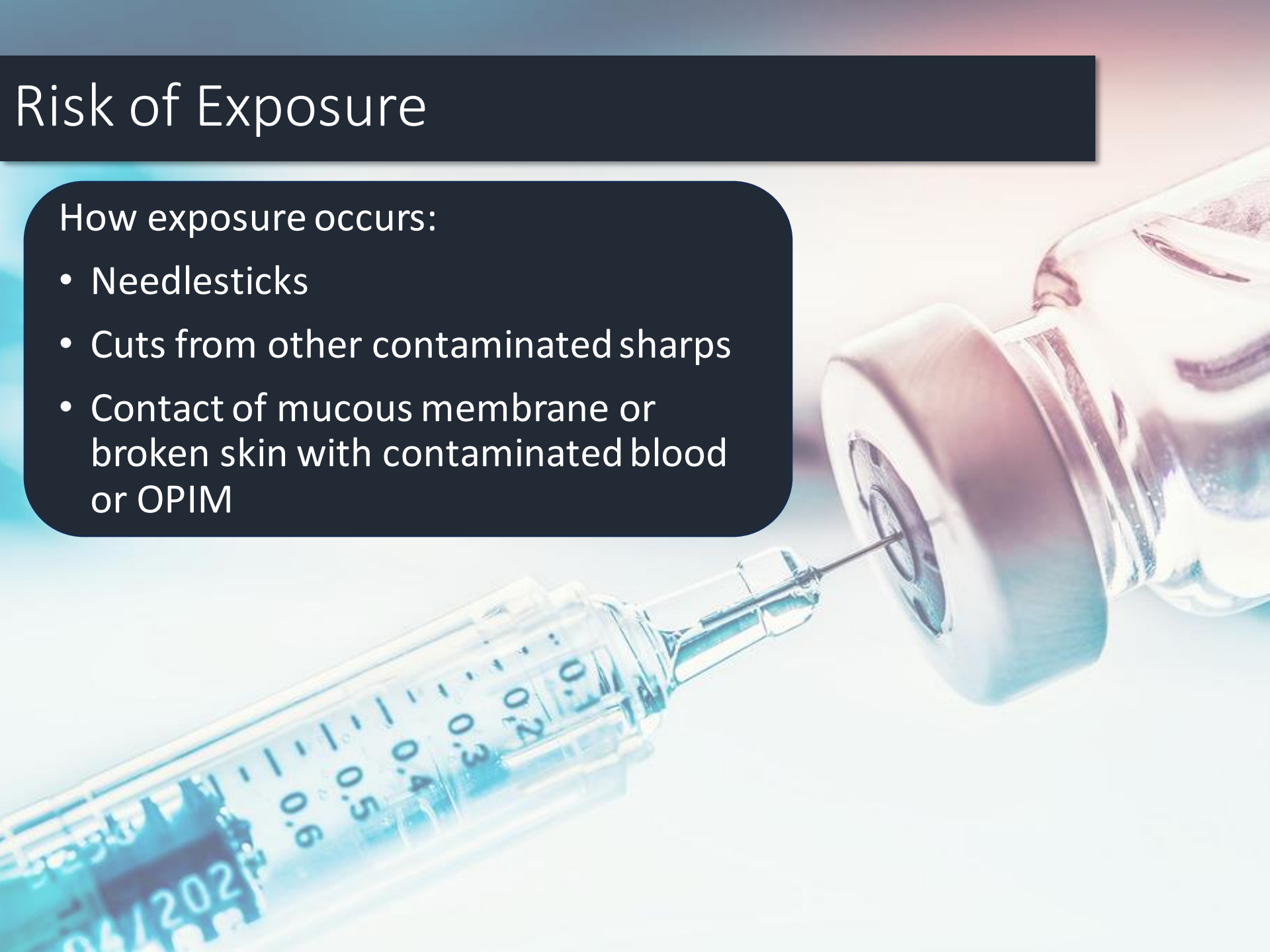
Spread of bloodborne pathogens occurs through:

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

Risk of Exposure

How exposure occurs:

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



Risk of Exposure

- CDC estimates 5.6 million workers in healthcare and related occupations are at risk
- All occupational exposure to blood or OPIM places workers at risk

Risk of Exposure

Required elements of Exposure Control plan include:

- Exposure determination
- Schedule and method of implementation
- Procedure for evaluation of exposure incidents
- Accessible to employees
- Review and update
  - Annually
  - When new or modified tasks/procedures are implemented

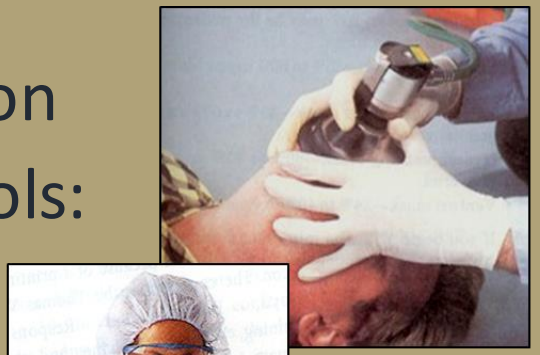
Controlling Exposures

Observe standard precautions, such as:

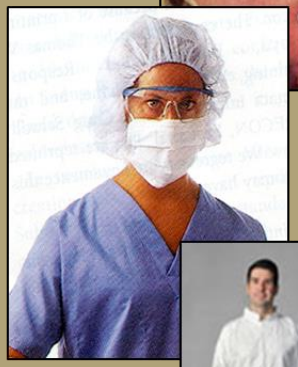
- Treating all blood and bodily fluids as if they are contaminated
- Proper cleanup and decontamination

Engineering and work practice controls:

- Safer medical devices
- Sharps disposal containers
- Hand hygiene



Source: OSHA DTE



Source: OSHA DTE

Source: NIOSH

Controlling Exposures

Employer's 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
- PPE selection
- Required PPE training

Controlling Exposures

Employees are responsible for:

- Properly wearing PPE,
- Attending training sessions on PPE,
- Care for, cleaning and maintaining PPE, and
- Informing a supervisor of the need to repair or replace PPE.

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.
- Create a written schedule for cleaning and decontamination
- Picking up broken glass
  - Not picked up by hands
  - Mechanical means only

Controlling Exposures

Regulated waste disposal:

- Dispose of regulated waste in closable, leak-proof red or biohazard labeled bags or containers
- Dispose of contaminated sharps in closable, puncture-resistant, leak-proof, red or

Laundry:

- Contaminated laundry must be bagged or containerized at the location where it was used.
- Do not take contaminated laundry home.

Controlling Exposures

Hepatitis B vaccination:

- Offered to all potentially exposed employees
- Provided at no cost to employees (within 10 days to employees with occupational exposure)
- Declination form

When Exposure Occurs

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.

Immediate actions:

- Wash exposed area with soap and water
- Flush splashes to nose, mouth, or skin with water
- Irrigate eyes with water and saline
- Report exposure immediately
- Direct employee to healthcare professional for treatment
- 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

One Team