SAFETY & BLOODBORNE PATHOGENS (BBP)

LESSON OBJECTIVES – BLOODBORNE PATHOGENS

- Word Review
- BBP routes of exposure
- Engineering controls
- Administrative controls
- PPE
- Some BBP diseases
- BBP exposures on the job
BLOODBORNE PATHOGEN

BBP  **DEFINITION**

**Bloodborne:** Carried by the blood

**Pathogen:** *path·o·gen*

“any disease-producing agent, especially a virus, bacterium, or other microorganism”
BIOHAZARD SIGNS
USED FOR BBP

District 1199C Training Fund HWWH SH-29634-SH6
UNIVERSAL PRECAUTIONS

- Act as if all blood, secretions and bodily fluids were contaminated with BBP
- Avoid direct contact with blood, secretions and bodily fluids that might contain blood
STANDARD PRECAUTIONS

Assume anything coming from the body can spread illness

(urine, feces, sweat, tears, secretions, etc.)

Standard precautions are meant to reduce the risk of transmission of bloodborne and other pathogens from both recognized and unrecognized sources.
ROUTES OF EXPOSURE: BBP
ROUTES OF EXPOSURE: PENETRATION & INJECTION

How could pathogens get into your blood?
BBP EXPOSURES AT WORK

- Needles left where they SHOULD NOT BE FOUND
  - In Linens
  - In Trash
  - On Trays
  - Stuck in brooms or mops
- Getting exposed to blood or bodily fluids when you have cuts, ripped cuticles, or cracked, irritated skin

District 1199C Training Fund HWWH SH-29634-SH6
BBP WORKPLACE EXPOSURES

- Blood or bodily fluids splashed onto bare skin

- Blood or bodily fluids splashed on your eyes, nose or mouth
  - While handling a patient
  - While handling trash or linens
  - When contacting blood or bodily fluids

- Touching your eyes, nose or mouth when your hands might have BBP on them
BODILY FLUIDS CAN CARRY BLOOD AND PATHOGENS
WHAT ABOUT SHARPS?

SHARPS INCLUDE NEEDLES, SCALPELS AND BROKEN EQUIPMENT
USED SHARPS CAN CARRY BLOODBORNE PATHOGENS
HOW TO CONTROL BBP HAZARDS
ENGINEERING CONTROLS
REMOVE THE HAZARD AT THE SOURCE:
THEY CONTROL THE HAZARD AS SOON AS IT APPEARS
ENGINEERING CONTROLS FOR NEEDLES

Used needles spread disease.

Nurses and doctors use safety needles as a form of engineering control:

Å A syringe with a cover that slides back over the needle after use.

Å The cover, or sheath, locks into place after the needle is used.
WORK PRACTICES AND ADMINISTRATIVE CONTROLS FOR BBP
BIOHAZARD CONTAINERS

- Leak proof containers
- Secure lids
- Labeled
- Color-coded
SHARPS CONTAINERS
CONTROL NEEDLESTICKS

Never overfill - Stop at the ‘full’ line! (about \( \frac{3}{4} \) full)
USING TOOLS TO HANDLE SHARPS: ASSUME SHARPS AT WORK ARE CONTAMINATED

NEVER USE YOUR HANDS TO REMOVE SHARPS OR NEEDLES!

Handling Sharps Requires Special Work Practices, Training & Tools

USE SHARPS HANDLING EQUIPMENT: TONGS, GLOVES & SHARPS CONTAINERS
BLOOD SPILL CLEAN UP KITS & TRAINING
WORK PRACTICES: DECONTAMINATION AND SANITIZING

CAN YOU SEE THE SYRINGE?

.....AND BLOOD ON THE FLOOR?
WORK PRACTICES: METHODS TO CONTROL EXPOSURE TO BBP

Sanitizers and Disinfectants

Frequent Cleaning
SAFE LINEN HANDLING PROCEDURES

- Bag linens right where you use them
- Handle linens as little as possible
- Use your PPE – gloves, gown, more if needed
- Laundry separated by hazard with labels and color-coded laundry containers
SAFETY RESPONSE EQUIPMENT: EYEWASH & SHOWER STATIONS

Where are eyewash stations needed?

Wherever workers could get splashed with:

- Corrosive chemicals
- Fluids that can injure your eyes or skin
EYEWASH AND SHOWER STATIONS MUST:

✓ Provide AT LEAST 15 minutes of clean, room-temperature, drinking quality water

✓ Clear access - Nothing blocking access to emergency eyewash or shower

✓ Signs
✓ Units checked weekly!
✓ Tagged
ADMINISTRATIVE CONTROLS: FREE VACCINES FOR HEPATITIS B

Hep. B vaccine

✓ Offered FREE to all employees who could get exposed at work

✓ Great Idea to Get it!
  Å Given during work hours
  Å You have a legal right to refuse
  Å Documented by your employer
ADMINISTRATIVE CONTROLS

TRAINING ON BBP SAFETY

✓ Train new employees
✓ Train for new tasks
✓ Retrain annually
PERSONAL PROTECTIVE EQUIPMENT FOR BBP PROTECTION
SOME PPE FOR BBP:

- Gown, scrubs or uniform
- Disposable gloves
- Droplet mask or N-95 respirator
- Eyes shield or goggles
- Boots or foot covers, head covers
PROTECT HANDS FROM INJURIES & FLUIDS – USE GLOVES
SHOULD THERE EVER BE SHARPS INSIDE WASTE BAGS?

No!
LAUNDERING UNIFORMS, SCRUBS, GOWNS

Is there a chance you might get blood, secretions, or other bodily fluids on your clothes at work?

YES?

✓ Your employer must clean work clothing if it’s been exposed to infectious materials- Not You.
✓ Your employer must launder exposed clothing and supply you with clean PPE.
LAUNDRY RULES: LEAVE GERMS AT WORK - DON’T TAKE THEM HOME

“The employer shall clean, launder, and dispose of PPE at no cost to the employee”

(when soiled with blood or potentially infectious material)

Bloodborne Pathogen Standard
HAND HYGIENE: MOST IMPORTANT WORK PRACTICE FOR BBP PROTECTION & INFECTION CONTROL
SOME

BLOODBORNE DISEASES
BLOODBORNE DISEASES

- HIV (the virus that causes AIDS - *Acquired Immune Deficiency Syndrome*)
- HEP B & C (Hepatitis virus)
- Syphilis
- Malaria
- Ebola
- *more*....

Main symptoms of AIDS

- Neurological
  - Encephalitis
  - Meningitis
- Eyes
  - Retinitis
- Lungs
  - Pneumocystis pneumonia
  - Tuberculosis (multiple organs)
  - Tumors
- Skin
  - Tumors
- Gastrointestinal
  - Esophagitis
  - Chronic diarrhea
  - Tumors
HEPATITIS B & C

- "Hepatitis" means inflammation of the liver
- The most common *virus* types that are spread by blood are Hepatitis B (HBV) and Hepatitis C (HCV).
- Viral hepatitis can cause liver cancer
  - Most common reason for liver transplant
  - According to the CDC*, between 3 to 5 million Americans live with chronic hepatitis; many DO NOT KNOW they are infected.
  - 50,000 new cases of viral Hepatitis each year
  - Jaundice: yellow eyes/skin
  - Immune system problems

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*http://www.cdc.gov/hepatitis/statistics/index.htm*
RESPONDING TO BBP EXPOSURES
WHAT SHOULD THE WORKER DO

IF STUCK OR EXPOSED TO BLOOD WHILE AT WORK?
DISCUSS

What would you do if you got stuck by a used needle at work?
PROTECT YOURSELF

✓ Assume ALL blood and body fluids are contaminated

✓ WASH OFF IMMEDIATELY

✓ Get Medical Care ASAP

✓ Report exposure
WHAT SHOULD WORKER DO?

✓ Wash the wound with soap and water!

✓ Flush mucus membranes (eyes, nose, mouth) if exposed to blood
  ✓ **15 minutes minimum** flush for eyes
  ✓ Use the Eyewash Station

✓ REPORT IT!
WHAT SHOULD YOU DO IF BLOOD OR BODILY FLUIDS SOAK THROUGH AND GET ON YOUR SKIN?

✓ Get contaminated clothing off
✓ SHOWER and CHANGE YOUR CLOTHES
✓ REPORT exposure!
✓ If exposure is to open cut or mucus membranes:

Seek immediate medical care
TREAT IT LIKE AN URGENT ACCIDENT

All exposures to blood, used needles and sharps are considered URGENT MEDICAL PROBLEMS
NEEDLESTICK OR BBP EXPOSURE MEDICAL CARE

Å Employee Health
Å Occupational Health
Å Medical Clinic
Å Emergency Department
Å Emergency Room - Nearest Hospital
TIME IS A FACTOR IN TREATMENT

Exposed to HIV infected blood?

May want to start medical treatment within 1 - 2 hours.

Exposed to Hepatitis infected blood?

May want to start medical treatment within 24 hours.
EXPOSED WORKERS SHOULD...

Follow treatment plan set by the doctor!

- Don’t miss any pills if you are prescribed medication
- Missing pills could result in developing the disease!
- Taking medication properly can reduce risk of infection by almost 80%
MONITOR YOURSELF FOR SYMPTOMS

Look out for symptoms that occur after the incident

- Fever
- Rash
- Muscle Pain
- Fatigue
- Overall discomfort
- Sore throat
- Swollen glands

These might be a sign of illness related to your exposure
FREE COUNSELING IF EXPOSED TO BBP AT WORK

✓ You must be provided with medical counseling about your choices for treatment.

✓ You have the right to start disease treatment immediately.

✓ Your employer pays for ALL medical expenses associated with needlestick injury. No co-pays.
RIGHT TO YOUR INFORMATION

Employer must let you know the results of your medical evaluation – within 15 days
DOCUMENT YOUR EXPOSURE / INJURY

✓ Try and remember every detail about how exposure/needlestick/sharps injury took place.

✓ Document it yourself or get someone you trust to do it for you.

✓ You can write it down or record it on your phone

✓ Document all the details before you forget them! You won’t regret doing this!
YOUR OWN DOCUMENTATION

WHY document what happened yourself?

1. Because you know best what happened, how and why
2. Accurate accident report
3. Medical details
4. Help prevent a similar problem in the future
5. In case you forget details later
WHAT DOES EMPLOYER HAVE TO DO

IF AN EMPLOYEE GETS STUCK OR SPLASHED?
EMPLOYER MUST:

✓ Provide immediate emergency medical counseling and care at no cost to employee

✓ (workers comp)
EMPLOYER HAS TO.....

✓ Document HOW the BBP exposure occurred
SHARPS LOG

✓ Each and every needlestick or sharps injury at work must be recorded by your employer.

✓ Employer must maintain an OSHA Sharps Log

✓ All employees have right to see the Sharps Log

✓ Employee names not included
SHARPS LOG

Documents:

✓ **HOW:** Circumstances of sharps exposure
  ✓ What kind of sharp – Needle? Scalpel? Glass?
  ✓ Which location, department?
  ✓ What went wrong? Why did it happen?

✓ How to prevent it from happening again
## ADMINISTRATIVE CONTROLS: TRACKING SHARPS INJURY

### SHARPS LOG

Establishment/ Facility Name: ____________________________

<table>
<thead>
<tr>
<th>Date</th>
<th>Case/ Report No.</th>
<th>Type of Device (e.g., syringe, suture needle)</th>
<th>Brand Name of Device</th>
<th>Work Area where injury occurred [e.g., Geriatrics, Lab]</th>
<th>Brief description of how the incident occurred (i.e., procedure being done, action being performed (disposal, injection, etc.), body part injured)</th>
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29 CFR 1910.1030, OSHA’s Bloodborne Pathogens Standard, in paragraph (h)(5), requires an employer to establish and maintain a Sharps Injury Log for recording all percutaneous injuries in a facility occurring from contaminated sharps. The purpose of the Log is to aid in the evaluation of devices being used in healthcare and other facilities and to identify problem devices or procedures requiring additional attention or review. This log must be kept in addition to the injury and illness log required by 29 CFR 1904. The Sharps Injury Log should include all sharps injuries occurring in a calendar year. The log must be retained for five years following the end of the year to which it relates. The Log must be kept in a manner that preserves the confidentiality of the affected employee.
EMPLOYER MUST.....

✓ Provide free and confidential:
  ✓ Medical counseling
  ✓ Medical treatment
  ✓ Medical follow up

✓ Keep information confidential
EMPLOYER MUST.....

- IF POSSIBLE – Identify Source Individual: The person (or patient) that blood or sharps came from
- Employer may blood-test the Source Individual (if he/she consents)
- Employer will offer to have worker’s blood TESTED for hepatitis and HIV antibodies as soon as possible (if employee gives consent)
EMPLOYEE BLOODTESTS.....

Establish **BASELINE** for disease exposure.

✔ What is a **BASELINE** blood test?
  ✔ Identifies disease antibodies in worker’s blood at the time of exposure

✔ Information used to:
  ✔ Give **accurate medical advice** about treatment options
  ✔ Document disease status at the time of injury.
EMPLOYER MUST STILL.....

✓ ASSUME all blood & bodily fluids are contaminated

*(unless proven otherwise)*

Never make employee pick up the needle or sharp, and then take it with them for analysis when they go for medical care!
QUESTIONS?
REVIEW LESSON OBJECTIVES—BLOODBORNE PATHOGENS

- Word Review
- BBP routes of exposure
- Engineering controls
- Administrative controls
- PPE
- Some BBP diseases
- Responding to BBP exposures on the job
OSHA RIGHTS AND WHISTLEBLOWER PROTECTIONS

OSHA laws give workers the right to:
- Participate in safety and health activities
- Report work related injuries or illnesses
- Report safety violations

Employer cannot take action against you for using your OSHA rights.
NO Firing or laying off
Blacklisting
Demoting
Denying overtime or promotion
Denial of benefits
Disciplining

Failure to hire or rehire
Intimidation
Making threats
Reassignment affecting prospects for promotion
Reducing pay or hours

No ‘Adverse Actions’ for Safety Activities
WHAT IF YOU GET IN TROUBLE FOR COMPLAINING?
WHISTLEBLOWER TIME LINE

OSHA LAW
Under Section 11(c) of the OSH Act, employees are protected from retaliation when they:
- file a safety complaint
- participate in a safety inspection.

TO BE PROTECTED
If employees experience retaliation, they must file a complaint with OSHA within 30 days.

If employees win a complaint case, they could be entitled to back pay and compensation for damages.

If employees lose a complaint case, they have 15 days to appeal* the decision.

*Second chance to win
FIVE WAYS TO COMMUNICATE WITH OSHA

1. E-mail an Interactive ONLINE Form
2. Call OSHA
3. In-Person Visit
4. Fax a Complaint
5. Mail a Letter
HOW TO CONTACT OSHA

[link]

US Department of Labor/OSHA
The Wanamaker Building
100 Penn Square East, 12th Floor
Philadelphia, PA 19107
Telephone: (215) 597-4955
Fax: (215) 597-1956
Toll-free number: 1-800-321-OSHA (6742)

OSHA WILL KEEP YOUR INFORMATION CONFIDENTIAL
FOR MORE INFORMATION

Healthcare Occupational Safety Center
Health Workers Working Healthy Training Project
District 1199C Training & Upgrading Fund
100 South Broad Street, 10 Floor
Philadelphia, PA 19119
215 568 2220

www.1199ctraining.org
WITH THANKS

- District 1199C
- Drexel University School of Public Health
- Jefferson School of Population Health
- Google Images