

# Applying the OSHA Bloodborne Pathogen Standard Chiropractic Setting



# Pre test

1. Who is covered by the OSHA Bloodborne Pathogen Standard?
  - a) A- All employees who could be reasonably anticipated as a result of performing their assigned job duties to face contact with blood or other potentially infectious materials are covered by the standard
  - b) B- Only persons who are trained to perform invasive procedures.
  
2. Is an Exposure Control Plan required by the employer if employees are at risk of exposure to blood or potentially blood containing body fluids?
  - a) No
  - b) Yes

# Pre test

3. What is the definition of an exposure incident?
  - a) A specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that result from the performance of an employee's duties.
  - b) A used needle stick or blood exposure to a cut or open skin area.
  
4. How often is education regarding this OSHA standard to be offered to those at risk for exposure and what should be covered in the education?
  - a) On hire and at least annually there after education related to the standard should occur
  - b) The content for inclusion in the training is defined in the standard

# Pre test

5. What should an employee do if they have a blood or body fluid exposure?
  - a) Wash the site of exposure with soap and water and report the exposure to the designated person at your facility. This should be done as soon as possible and include a description of how the incident occurred, including the name of the person who was the source of the exposure if it is known and the device being used if any at the time of the exposure.
  - b) Report the exposure when you have time to do so is sufficient.
  
6. What does bloodborne pathogen mean?
  - a) Human Immunodeficiency virus (HIV) and Hepatitis B virus (HBV)
  - b) HIV and HBV are specifically referenced in the standard but the term bloodborne pathogen includes any pathogen that is present in blood and can infect/cause disease in people who are exposed to blood containing the pathogen.

# Pre test

7. What are the requirements for a bloodborne pathogen exposure (BBPE)?
  - a) Send employee to a healthcare professional (HCP) with a copy of the standard, description of the incident, employee's relevant medical information as available and job description. HCP reviews incident, arranges testing of employee and source person, notifies employee of all results, provides counseling & prophylaxis as needed. Evaluates reported illnesses. (All of this information is confidential.)
  - b) Wait and see what happens.
  
8. What are the precautions to take for persons who perform procedures with risk of BBPE risk?
  - a) Use of safety devices to minimize risks of exposure. This includes gloves and other protective equipment and safety devices if available to minimize exposure, for example, safe sharps devices.
  - b) Use caution. Do not use two hands to recap sharps.

# Objectives



- ❖ Recognize key components of the Federal & MNOSHA Bloodborne Pathogen Standard.
- ❖ Identify required elements for compliance with the standard related to an exposure control plan (ECP).
- ❖ Requirements for staff who perform acupuncture, blood draws, sharps handling or specimen handling related to these procedures.
- ❖ Define a bloodborne pathogen exposure and state the requirements for employees in jobs with blood exposure risk and the required follow-up if an exposure occurs.
- ❖ Link to the MNOSHA Bloodborne Pathogen Standard: [http://www.dli.mn.gov/wsc/pdf/wsc\\_bloodborne\\_pathogens\\_1011.pdf](http://www.dli.mn.gov/wsc/pdf/wsc_bloodborne_pathogens_1011.pdf)

# Where are you and your staff at risk for exposures

- ❖ Blood drawing safety
- ❖ Acupuncture needle handling when removing and discarding the needle
- ❖ Patients with areas of open wounds or drainage related to therapy sites

# Scope of the OSHA Bloodborne Pathogens Standard

OSHA Regulation 1910.1030



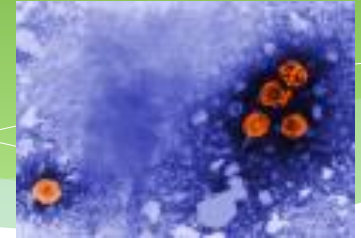
# Health Care Worker's Risks

- ❖ Health care workers may be exposed to bloodborne pathogens by:
  - Injury by a sharps object or
  - Contact of mucous membrane or non-intact skin with blood, tissue, or other potentially infectious bodily fluids
  
- ❖ Some studies estimate that every year:
  - More than 400,000 US healthcare workers are exposed to bloodborne pathogens
  - 1 out of 10 US healthcare workers suffers a splash exposure or a needle stick injury (Karmon, Mehta, Brehm, 2013; Henderson, 2012).

# What Are Bloodborne Pathogens?

- ❖ Microorganisms in human blood that can cause infection in humans including:
  - Hepatitis B (HBV)
  - Human immunodeficiency virus (HIV)
  - And Hepatitis C along with bacteria and viruses that can be transmitted by blood/other regulated body fluids.
- ❖ For a bloodborne pathogen to be spread, the bodily fluids of an infected person must enter into the bloodstream of another person.

# HBV (hepatitis B virus)



- ❖ Hepatitis B is a viral infection of the liver
- ❖ It can cause liver failure, cancer, & death if not treated
- ❖ It is spread by contact blood, open sores, or body fluids from someone infected with hepatitis B
- ❖ Generally people recover within a few months

[www.webmd.com/hepatitis/digestive-diseases-hepatitis-b](http://www.webmd.com/hepatitis/digestive-diseases-hepatitis-b)

# Hepatitis B Vaccination

- ❖ Hepatitis B vaccination needs to be offered to employees identified in the exposure control plan as at risk for exposure.
- ❖ It is an OSHA requirement for employees who in the course of their job could have routine exposure to used sharps or blood and body fluids if they did not have personal protective equipment. This is the criteria for determining if staff need to be included in the blood borne pathogen rule requirements.
- ❖ Training is required on hire and annually and if a new risk is identified (new procedure, accident not previously considered) for employees determined to be at risk for exposure.
- ❖ Hepatitis B Vaccination needs to be offered on hire. This includes 3+ doses over 6+ months. The number of doses and the timing is determined by testing after the third dose.
- ❖ The employee at risk of bloodborne pathogen exposure needs to sign a consent for the Hepatitis B vaccine or sign a declination. If the employee chooses to decline vaccination, he/she can change his/her mind at any time while they are employed in a job with risk of blood or body fluid exposure. The vaccine must be provided free.

# HIV

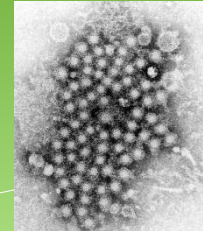
## (Human Immunodeficiency Virus)

- ❖ HIV weakens a person's immune system by destroying important cells that fight disease and infection
- ❖ No effective cure exists for HIV. But with proper medical care, HIV can be controlled
- ❖ HIV is a virus spread through certain body fluids that attacks the body's immune system, specifically the CD4 cells, often called T cells. Untreated, HIV reduces the number of CD4 cells (T cells) in the body. This damage to the immune system makes it harder and harder for the body to fight off infections and some other diseases
- ❖ You can get or transmit HIV only through specific activities. Most commonly, people get or transmit HIV through sexual behaviors and needle or syringe use.

<https://www.cdc.gov/hiv/pdf/library/factsheets/hiv101-consumer-info.pdf>

# HCV

(Hepatitis C Virus)



- ❖ Hepatitis C is a liver infection caused by the Hepatitis C virus (HCV). HCV is a blood-borne virus. Today, most people become infected with the HCV by sharing needles or other equipment to inject drugs.
- ❖ In healthcare settings it is important to wear gloves and perform hand hygiene whenever there is risk of exposure to blood or body fluids and to be sure that invasive equipment is not shared between persons unless it has been disinfected/sterilized according to CDC & manufacturer recommendations. Be especially careful with sharps, discarding them immediately after use in a sharps container and use devices that have a safety mechanism to minimize sharps injuries.
- ❖ Many people do not know they have this disease. Symptoms can include stomach pain, nausea, fatigue, loss of appetite, or jaundice

<https://www.cdc.gov/hepatitis/HCV/index.htm>

# Defining Standard Precautions

- ❖ Standard precautions are designed to reduce the risk of transmission of microorganisms from both recognized and unrecognized sources of infection.
  
- ❖ **Standard Precautions** apply to:
  - Blood
  - All body fluids, secretions, and excretions, *except sweat*, regardless of whether or not they contain visible blood
  - Non-intact skin
  - Mucous membranes
  
- ❖ When risk of such exposures is anticipated appropriate barriers are to be used. Depending on the situation this may include gloves, gown, face protection, etc.

# Engineering Controls

- ❖ Engineering Controls: reducing exposure risk by removing the hazard
  - Ex. A sharps disposal container or a sharps safety device





# Work Practice Controls

- ❖ These are methods that reduce the likelihood of exposure by altering how the task is performed
- ❖ An example would be no food or beverages in areas where there is risk of blood body fluid exposure (procedure area)

# Reducing the Risk of Blood Exposure & Needle Stick

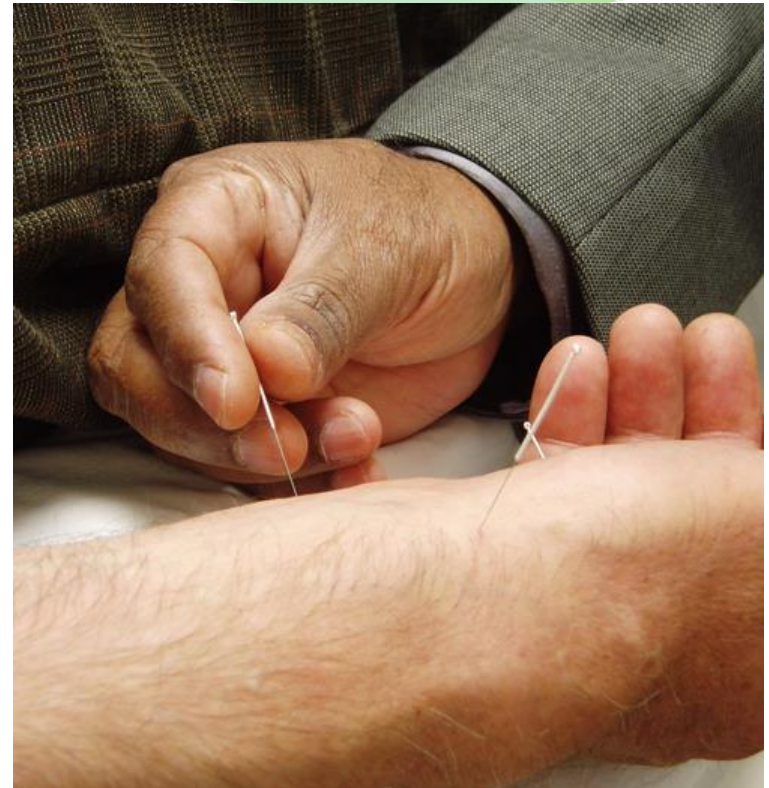
- ❖ Use well fitting, one time use gloves
- ❖ Use safe sharps device for blood draws.
- ❖ Assure skin location is disinfected before each puncture.
- ❖ Discard blood draw items in sharps container.
  - Discard tourniquet (these items are one time use only). This should be done immediately after use.
  - Discard the vacutainer tube holder after each patient use. These items are labeled one time use disposable and it is against federal regulation to reuse them.
- ❖ Hand hygiene is performed before and after each blood draw and workspace cleaning.
- ❖ Be sure that specimen is labeled correctly and put in a biohazard specimen container for specimen transport.



There are a few different types of blood drawing equipment. The equipment has to have sharps safety devices on the needle and the holder for the blood tube is a disposable one time use item as are all tourniquets today.

# Reducing the Risk of Blood Exposure & Needle Stick: Acupuncture

- ❖ Hand hygiene should be performed before performing invasive procedures
- ❖ The patient's skin should be disinfected with alcohol before puncturing the skin. The alcohol should be allowed to dry
  - If the alcohol is dry there will be no burning noted by the patient
- ❖ If the patient has any bleeding, a bandage should be applied
- ❖ Gloves may be recommended



# Personal Protective Equipment (PPE)

- ❖ In chiropractic settings blood drawing requires the use of gloves and hand hygiene before and after the procedure.
- ❖ The device used to draw blood should have a safety feature to minimize exposure risk.
- ❖ The tourniquet used to help find the blood vessel is a one time use/disposable item and this is a federal regulation. Gloves and blood draw equipment must also be disposable.
- ❖ For acupuncture, hand hygiene must be performed before each patient procedure. Well fitting, one time use gloves are recommended.

# Requirements for Contaminated Waste/Sharps

## ❖ Used sharps:

- Needles and blood draw items are to be discarded immediately after use in designated sharps containers close to the point of use and in a location that is safe from children, etc.

## ❖ NIOSH recommendation:

- If the sharps container is wall mounted it is best to have it 52-56 inches from the floor for safety reasons. This is not a requirement.



# More about the OSHA Bloodborne pathogen Standard- 29 CFR Part 1910.1030-

- ❖ OSHA's Bloodborne Pathogens Standard (29 CFR Part 1910.1030) requires employers of at-risk workers to protect their workers
- ❖ The standard includes the requirement for an Exposure Control Plan (ECP)

# Engineering Controls & Work Practices

Clinic settings that perform procedures where there may be risk of blood/blood containing body fluid exposure need to address this OSHA standard.

- ❖ Specific engineering controls examples:
  - Needleless systems
    - Sharps with safety devices
  - Sharps disposal containers located for disposal of sharps immediately after use
  - Other safety devices or procedures as available for specific procedures
  
- ❖ Ongoing review for system changes or new safer products should occur at least annually.
  
- ❖ Staff need to be included in selection and evaluation of safer products.

# Exposure Control Plan (ECP)

- ❖ The ECP is the key tool for protecting employees and helping to ensure compliance with the OSHA Standard.
- ❖ An ECP is required if employees are at risk exposure to blood and potentially infectious body fluids.
- ❖ ECP's include:
  1. Determination of employee exposure
  2. Implementation of exposure control methods
  3. Offering Hepatitis B vaccination to those at risk of exposure
  4. Post exposure evaluation and follow-up
  5. Training for new hires and annually for all staff with risk to blood exposure
  6. Recordkeeping
  7. Evaluation of circumstances surrounding exposure incident
- ❖ The ECP document needs to be easily available to employees covered by this regulation.
- ❖ A sample template for a plan is included at the end of the presentation.





*Clinic XYZ*  
OSHA Bloodborne  
Pathogen Exposure  
Control Plan  
2017

- ❖ See template link/attachment in the references on [slide # 43](#).

# Determining risk exposure (example):

Job classifications in which ALL employees have occupational exposure	Job classifications in which SOME employees have occupational exposure- <i>Include what activity puts the employee at risk</i>
Phlebotomist (draw blood)	Chiropractor
Acupuncturist	Employees whose job requires them to handle used sharps containers...

# Staff inclusion in the Bloodborne Pathogen Standard:

- ❖ Staff completing the following tasks require inclusion with the Bloodborne Pathogen Standard:
  - Handling of used sharps/containers
  - Handling of biohazardous waste (lab waste, used sharps/containers, body fluid contaminated items/ potentially body fluid soiled laundry)
  - Cleaning up any body fluid spills/areas
  - Performing acupuncture
  - Performing blood draws

# Personal Protective Equipment (PPE)

- ❖ PPE is provided at no cost to employees and includes:
  - Training in the use of and availability of appropriate PPE (correct sizes and types must be made easily accessible)
  
- ❖ PPE must be removed and hand hygiene performed before leaving the procedure area
  
- ❖ List items:
  - Types of PPE available:
  - Location of PPE and process for obtaining them:
  - Required PPE precautions/how and when to use them

# Training and Equipment for Use During Procedures Where There is Risk of Blood/Body Fluid Exposure:

## ❖ Appropriate Training Materials:

- Videos/training tools available for safe blood drawing procedures. Training materials may be available from the laboratory where the specimens are sent for processing or with the equipment manufacturer

## ❖ PPE:

- Gloves must always be worn for drawing blood
- Hand hygiene before and after procedure
- Safe sharps devices need to be used
- The surface where the blood draw is performed should be disinfected before & after each patient.

## ❖ Collect all supplies before initiating the blood draw procedure.

## ❖ Use EPA approved disinfectants for healthcare to disinfect blood draw counters before and after use, even if they are covered by a towel/drape.

# Disposable Impervious Gloves For Cleaning up Potentially Soiled Areas



- ❖ ECP language is likely to include requiring PPE's when:
  - Working in the area of a Blood draw/lab or procedure table when a blood draw or lab is occurring
  - Cleaning visibly soiled areas, especially ones with possible body fluids/blood present
  - Acupuncture area

# Laundry ECP Requirements

- ❖ Articles should either be laundered at the facility where it is used or by a professional laundry
- ❖ Include in the Exposure Control Plan:
  - Laundry done by: *name of responsible person/department /location/ if onsite and name of responsible person onsite and name of commercial laundry and contact person if a contract service is used.*
- ❖ Specific laundry requirements
  - Clearly designated clean vs soiled laundry; usually this means labeled and/or color coded laundry baskets/containers & impervious bags
  - Clean separation of clean vs. soiled work flow – separated storage locations

**\*Used/soiled laundry from medical care facilities should not be taken to an employee or worker's home to be laundered (MNOSHA)**

# Laundry requirements continued

- ❖ Contaminated laundry means have blood or body fluids present.
- ❖ Used, contaminated laundry should be handled as little as possible, use gloves and other PPE (i.e. gown if needed to protect the worker).
- ❖ Bagged or containerized at the location where used. Do not sort or rinse at this location. Placed in bags that are impervious and labeled or color coded to indication that laundry is used/contaminated. Many commercial laundries treat all used linen as contaminated.



# Labels for Potentially Contaminated Materials

Items to be labeled	Labeling
Specimens	Biohazard label on specimens transport container.
Contaminated/soiled laundry	Designated container/bag labeled contaminated/used laundry unless all laundry is handled as contaminated.
Biohazardous waste	Red biohazard labeled impervious bag for biohazardous waste & biohazard labeled sharps container for used sharps devices

**Sharps containers must be sealed shut for disposal when  $\frac{3}{4}$  full**

# Post-Exposure Evaluation & Follow-Up

- ❖ In the event of an exposure incident, a clinic identified person should be contacted
  - Include the name and contact information in the exposure control plan
- ❖ Following initial first aid, perform activities as described in ECP:
  - Direct the exposed person regarding a confidential medical evaluation. The person should be a licensed healthcare provider (HCP).
  - The HCP should be provided a copy of the OSHA standard exposed employees routine duties, circumstances of the exposure, blood test results and relevant medical records. It is very helpful to use a service that is familiar with this process i.e. a large hospital ER or an occupational health service that specializes in healthcare.

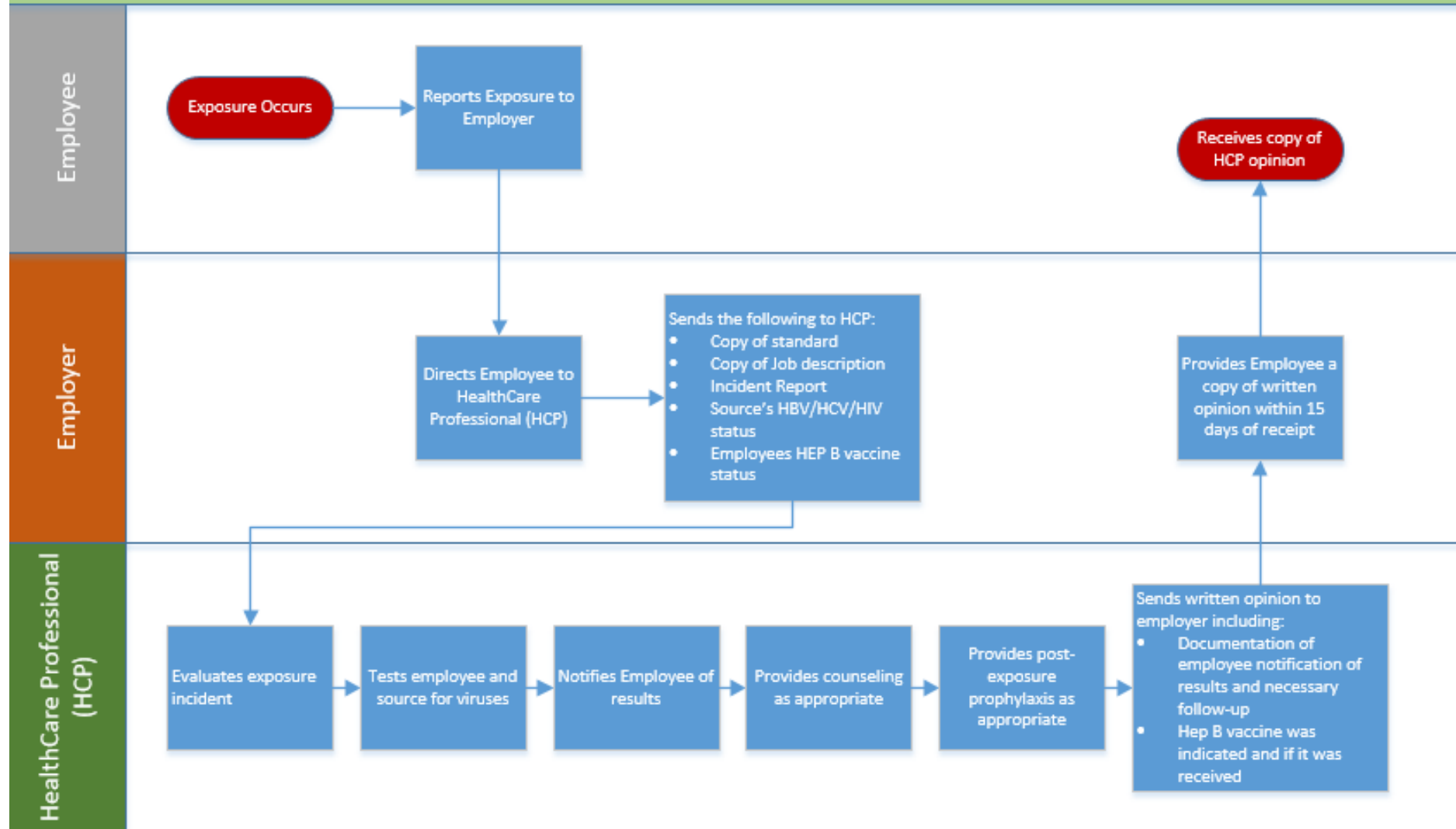
# Post Exposure Evaluation & Follow-Up

- ❖ Health care professional responsible for employee's hepatitis B vaccination and post-exposure evaluation are to have available:
  - Copy of OSHA Bloodborne Pathogen standard
  - Information re: employee's relevant duties, route/circumstances of exposure, blood test results, relevant medical records
  - Blood work can be ordered for rapid results and available within a few hours.
  
- ❖ The exposed employee is to receive the written opinion of follow-up within 15 days of completion of evaluation. Usually this occurs at the time of the exposure, when the lab results are available and as a follow-up, & when additional lab tests or medication may be indicated.

## After an Exposure Event, an Evaluation of Circumstances Surrounding Exposure Incident is Required

- ❖ *Name of responsible person/department at your organization will:*
  - Review circumstances of exposure incidents as described in ECP
  - Record sharps injuries in Sharps Injury Log and OSHA 300 Log of Occupational Injuries and Illnesses (no personal identifiers)
  - Revise ECP as indicated by findings (ongoing)

# Post-Exposure Evaluation And Follow-Up



# Employee Training

## ❖ Employee training must include:

- All employees who have occupational exposure to bloodborne pathogens receive training conducted by name of responsible person/department
- Training will address all items described in Employee Training section of ECP
- The training occurs on hire and at least annually thereafter as long as the person is in a job where there is risk of exposure

# Blood Drawing Procedure Documentation:

## ❖ Clinic needs a written procedure documenting:

- Use single use disposable gloves
- Use safe sharps device
- Use single use tourniquet
- Use skin antiseptic on needle puncture site before procedure
- Use single use vacutainer tube holder
- Apply bandage to site after blood draw is completed
- Discard used sharps & blood draw equipment as soon as possible after use



# Acupuncture

## MN-OSHA

- ❖ MN-OSHA recommends gloves be used during Acupuncture treatments
- ❖ Exam type, sized gloves providing a good fit
- ❖ Gloves are required for:
  - all blood draw procedures
  - for starting an IV
- ❖ Gloves are optional for injection like procedures.
- ❖ Needles should have a safety device to activate after use, if available.
- ❖ Sharps containers should be close to point of use for quick disposal but in a safe location to prevent access by non healthcare staff.





# Recordkeeping

- ❖ Training records are maintained in compliance with the ECP Recordkeeping section
- ❖ Medical records are maintained for each employee with occupational exposure in accordance with 29 CFR 1910.1020 and the ECP (for 30 years after employment is terminated)
- ❖ Exposure incidents are recorded in compliance with OSHA's Recordkeeping Requirements
- ❖ Sharps injuries are recorded in the Sharps Injury Log according to the ECP

*See the Exposure Control Plan Template attached to this training material.*

# Sample Sharps Injury/Exposure Log Example

*(individual identifiers are not to be included)*

Year: \_\_\_\_\_

Date/month of exposure	How it occurred- suggested	Specific devices involved (brand, product identified, size,...)	Prevention recommendation based on feedback from exposed person and current safe practices
1			
2			
3			

(Log reviewed at least annually)

# References

- ❖ Sample exposure control plan
- ❖ List of examples of engineering controls & work practice controls in healthcare
- ❖ Post Exposure Evaluation Flowchart
- ❖ MNOSHA Occupational Exposure to Bloodborne Pathogens slide set-Oct. 2011

[http://www.dli.mn.gov/wsc/PDF/wsc\\_bloodborne\\_pathogens\\_1011.pdf](http://www.dli.mn.gov/wsc/PDF/wsc_bloodborne_pathogens_1011.pdf)

# Post test

1. Who is covered by the OSHA Bloodborne Pathogen Standard?
  - a) A- All employees who could be reasonably anticipated as a result of performing their assigned job duties to face contact with blood or other potentially infectious materials are covered by the standard
  - b) B- Only persons who are trained to perform invasive procedures.
  
2. Is an Exposure Control Plan required by the employer if employees are at risk of exposure to blood or potentially blood containing body fluids?
  - a) No
  - b) Yes

# Post test

3. What is the definition of an exposure incident?
  - a) A specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that result from the performance of an employee's duties.
  - b) A used needle stick or blood exposure to a cut or open skin area.
  
4. How often is education regarding this OSHA standard to be offered to those at risk for exposure and what should be covered in the education?
  - a) On hire and at least annually there after education related to the standard should occur
  - b) The content for inclusion in the training is defined in the standard

# Post test

5. What should an employee do if they have a blood or body fluid exposure?
  - a) Wash the site of exposure with soap and water and report the exposure to the designated person at your facility. This should be done as soon as possible and include a description of how the incident occurred, including the name of the person who was the source of the exposure if it is known and the device being used if any at the time of the exposure.
  - b) Report the exposure when you have time to do so is sufficient.
  
6. What does bloodborne pathogen mean?
  - a) Human Immunodeficiency virus (HIV) and Hepatitis B virus (HBV)
  - b) HIV and HBV are specifically referenced in the standard but the term bloodborne pathogen includes any pathogen that is present in blood and can infect/cause disease in people who are exposed to blood containing the pathogen.

# Post test

7. What are the requirements for a bloodborne pathogen exposure (BBPE)?
  - a) Send employee to a healthcare professional (HCP) with a copy of the standard, description of the incident, employee's relevant medical information as available and job description. HCP reviews incident, arranges testing of employee and source person, notifies employee of all results, provides counseling & prophylaxis as needed. Evaluates reported illnesses. (All of this information is confidential.)
  - b) Wait and see what happens.
  
8. What are the precautions to take for persons who perform procedures with risk of BBPE risk?
  - a) Use of safety devices to minimize risks of exposure. This includes gloves and other protective equipment and safety devices if available to minimize exposure, for example, safe sharps devices.
  - b) Use caution. Do not use two hands to recap sharps.