



**TEXAS**  
Health and Human  
Services

**Texas Department of State  
Health Services**

# Operation Border Health Preparedness (OBHP) Needle Stick and Splashes

DSHS Health Service Region 11

Last Updated: 03/27/2023

# Hello and Welcome to the Operation Border Health Preparedness (OBHP) Needle Stick and Splashes training!

The following four objectives will be covered in this training...



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# Objectives

- Describe how bloodborne pathogens are spread in the workplace
- Describe two risk factors that increase the likelihood for sharp injuries in a mass care setting
- Describe three key components in the OLS Bloodborne Pathogen Exposure Control Plan
- Describe the 3 key steps to take in the event of an occupational exposure

The main focus of this training is preventing and responding to occupational exposures at OBHP sites.



# What are bloodborne pathogens?

Micro-organisms that are present in blood, tissue, blood products, other potential infectious materials (OPIM)

**Bloodborne pathogens can be spread many ways:**

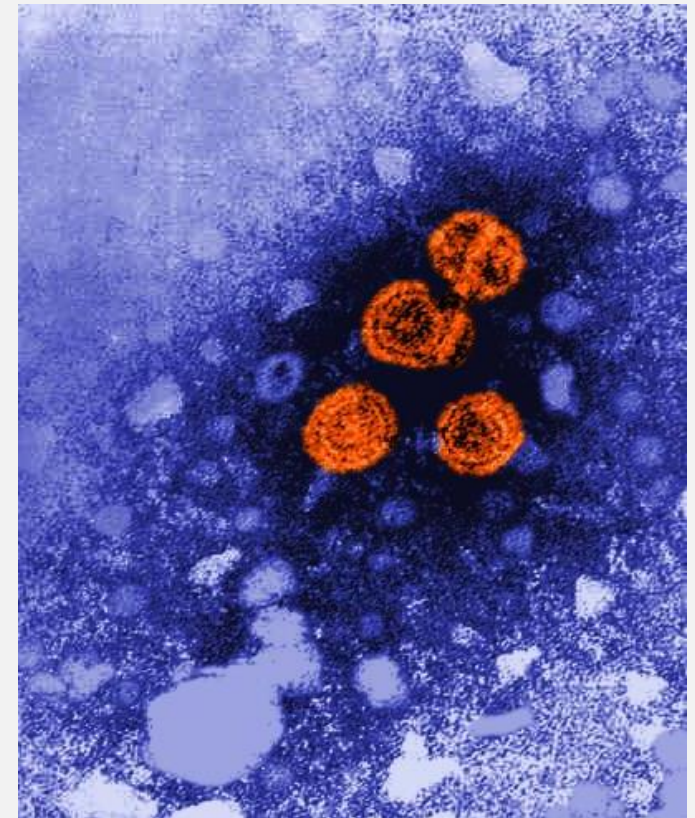
Through contaminated sharp objects that cut or puncture the skin,

- ... contaminated fluids in direct contact with open skin (cuts, abrasions),
- ... contaminated splash with eyes, mouth, or nose, or
- ... sharing needles and through sexual contact.



# Hepatitis B

- 100 times more infectious vs. HIV
- Can live on dried surfaces for one week
- 6-30% chance of infection from an exposure i.e. puncture wound
- Symptoms include loss of appetite, nausea and/or vomiting, fever, abdominal pain, jaundice
- 87-90% of those infected will develop immunity and clear the infection
- 7% will become chronic carriers
- 3% will develop fatal liver disease
- 3% will develop chronic active Hepatitis



Vaccine preventable – it requires 3 doses, but is a highly effective vaccine

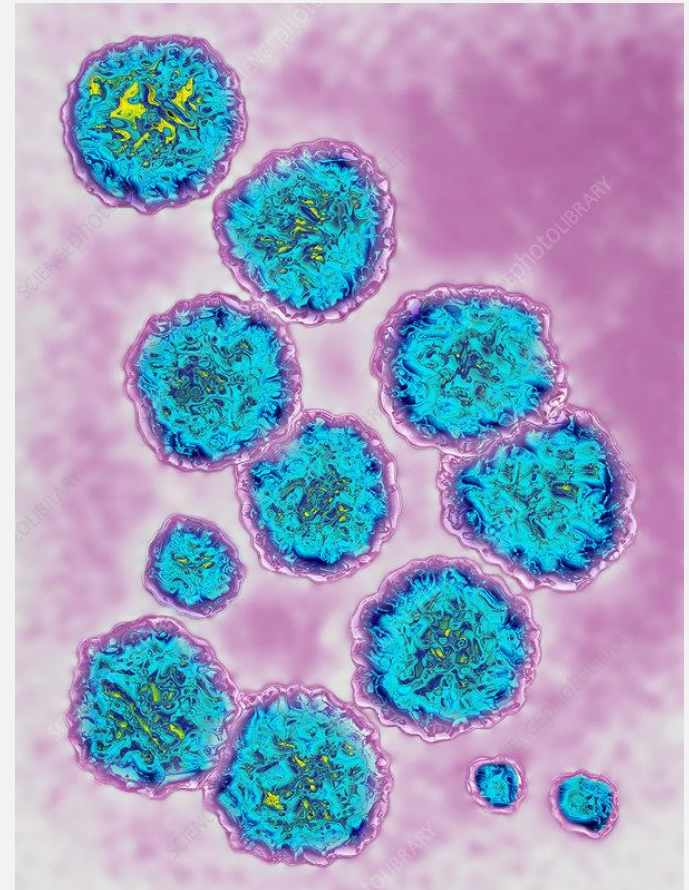


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# Hepatitis C

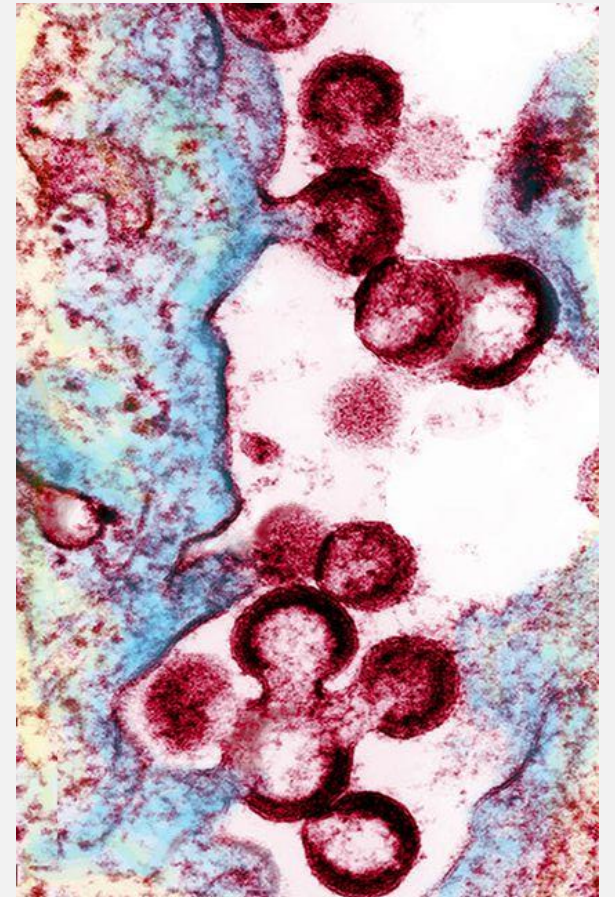
- Risk for exposure from a contaminated puncture wound is about 1.8% (range 0-7%)
- Most transmission is transmission is transfusion or IV drug use related
- About 3.2 million people in the United States are infected
- Chronic infection will develop in about 75-80% of those infected

Unlike Hepatitis B, Hepatitis C is not vaccine preventable



# HIV

- HIV infects the immune system and can lead to one day developing AIDS
- Unlike Hepatitis C and B, HIV is a very fragile virus and will not survive long outside the body
- Symptoms of early HIV infection can include night sweats, weight loss, and swollen glands, but most often there are no symptoms.
- While contact with HIV is a very scary thing, you should know that the risk of transmission through a needlestick or cut with HIV infected blood is 0.3%. A splash to the eyes or nose or mouth is 0.1%. Risk of non-intact skin to HIV infected blood is estimated to be less than 0.1%.





# Unique Risk Factors at OBHP and Pre-Exposure Risk Mitigation

- A large number of people are seen daily
- Don't let the rush of many people get in the way of being safe
- You should always use safety precautions, and always activate the sharps safety device which we will speak about in a few minutes



# Unique Risk Factors at OBHP and Pre-Exposure Risk Mitigation (continued)

- At OBHP, there are many volunteers from different agencies with different habits and protocols for handling bloodborne pathogens. There are also health care student volunteers, and it is very important that students are supervised at all times by their instructor.



# Risk Categories

Risk Categories and exposure determination for Operation Border Health Preparedness (OBHP) workers at a site who have exposure to blood or other potentially infectious material (OPIM)

- **Risk Category I** – includes volunteers performing tasks that involve exposure to blood, body fluids, or tissues
- Examples of Operation Border Health Preparedness site risk Category I job classifications include:
  - Medical Screeners
  - Dental Hygienists
  - Immunizations
  - Physician Assistants
  - Dentist
  - Diabetes Screeners
  - Dental Technicians
  - Physicians

In addition, there are many other staff who could fall into category 1 – these classifications vary by site



# Risk Categories (continued)

- **Risk Category II** – the normal work routine of volunteers in this category involves no exposure to blood, body fluids, or tissues, but exposure may be required as a condition of employment
- **Risk Category III** – includes volunteers performing tasks that involve no exposure to human blood, body fluids, or tissues



# Risk Categories (continued...)

- Immunizations will help to reduce risk of an infection should an exposure occur
- Category I and II workers should have completed their series of 3 (three) Hepatitis B vaccinations
- If the immunity status of an exposed person is unknown, this must be documented



# Personal Protective Equipment (PPE)

- Use of appropriate personal protective equipment (or PPE) will be required for every employee engaged in Category I tasks, and will be readily available to every employee engaged in Category II tasks
- Examples of personal protective equipment include: Gloves, Gowns, Aprons, Face shields, Goggles, Lab coats, CPR masks
- Specific PPE selections will be based on tasks, hazards, and risks. These selections will be made by the Infection Control staff and/or Safety Officer.



# Personal Protective Equipment (PPE) (continued)

Goggles are often overlooked, but your eyes can be a point of entry for bloodborne pathogens. Anytime there is a risk of splashing or vaporization of fluids which have the potential to be contaminated, goggles and/or other eye protection should be used to protect your eyes.

Generally, methods to control exposure fall into three (3) categories:

- **Engineering Controls**
- **Work Practice Controls**
- **Housekeeping**

Let's look at each of these separately...



# Engineering Controls

Engineering controls include devices such as sharps containers and sharps safety devices, but that are only useful if they are used and used correctly





# Work Practice Controls

Work Practice Controls include your work practices such as hand washing. Be sure to use the hand washing facilities and hand sanitizer as needed.

Work practice controls also include:

- Immediately placing sharps items ready for disposal in sharps containers
- Changing sharps containers when they are 2/3 full
- Ensuring that extra sharps containers are always available
- The safe clean up of blood and body fluids

Let's look more closely at the last one – safe clean up of blood and bodily fluids. In the case of blood and bodily fluids, you need to not just be wiping up the spill, but also decontaminating the spill.



# Safe Clean Up of Blood and Bodily Fluids

Decontamination can be accomplished with a bleach solution diluted between 1:10 and 1:100 with water (1/4 cup to a gallon of water), OR other EPA registered tuberculocidal/viricidal disinfectant – check the label to make sure it meets the requirements.

To clean up a blood spill, carefully cover the spill with paper towels or rags, then gently pour the disinfectant over the towels and leave at least ten (10) minutes, or per manufacturer instructions.

Mops and other reusable equipment must be decontaminated after use.

***Never Touch Contaminated Objects/Broken Glass With Your Bare Hands!***



# General Housekeeping

General housekeeping will reduce the risk of bloodborne pathogen exposure.

Each OBHP work site must be clean and sanitary.

Each site must maintain a written cleaning method, including approved disinfection methods.

Cleaning of equipment must be done according to the written method.

The plan to reduce risk of bloodborne pathogens also includes training and record keeping.



# Glucometer Cleaning Protocol

The glucometer device must be clean and disinfected between patients.

Gloves must be changed and hands sanitized between patients.

The glucometers, as well as other environmental surfaces, must be thoroughly cleaned at the beginning and end of the day, and again whenever contamination with blood or other body substances is suspected with a disinfectant product that is EPA-approved to kill infectious viruses, like Hepatitis B.



# Glucometer Cleaning Protocol (continued)

Hepatitis B requires this special type of cleaner because it may remain viable on the glucometer sharing in the health care environment.

It is very important that we all follow this protocol to prevent anything like that occurring at an OBHP site.



# Other Work Practice Controls Include:

- Work area restrictions
- Safe transport of equipment and supplies
- Careful handling of specimens
- Risk free handling of contaminated equipment
- Appropriate and sufficient PPE, and proper use

Accurate labeling, specifically the use of bio-hazard labels, is very important to reducing bloodborne pathogen exposure risk.



# Other Work Practice Controls (continued)

Everything that contains infectious waste, including storage areas should be labeled with biohazard labels. Containers need to be leak-proof, closable, puncture-resistant and labeled. Biohazard waste should be separated from regular waste. Bagged biohazard waste must remain in its original container (i.e., sharps container, or red bag) throughout the disposal process.

And, because it is so important:

**Never Touch Contaminated Objects/Broken Glass With Your Bare Hands!**

But what if an exposure occurs?



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# Bloodborne Exposure Protocol

If an exposure occurs, the OBHP-specific post-exposure evaluation and follow-up process must be followed. Forms are found, at each site and at Area Command.

An exposure incident is defined as: A specific eye, mouth, or other mucous membrane, non-intact skin or parenteral contact with blood or other potentially infectious material which results from an employee performing their duties.





# Bloodborne Exposure Protocol (continued)

To help you remember what to do immediately, remember the **WIN (W-I-N)** acronym

**W** – wash the exposed area

**I** – identify the source

**N** – notify management

Let's now review the **WIN** step by step...



# WIN Step-by-Step Procedure is:

1. Wash, flush or irrigate exposed site
2. Test Client or Source: Screen client for high-risk behaviors for HIV, Hepatitis B, C and Syphilis (rapid plasma reagin [RPR]) (Obtain consent and provide counseling)
3. Notify immediate team lead (this may occur concurrently with Steps 1 or 2)
4. Complete Post Exposure Packet and be evaluated by a health care provider within 1-2 hours



# WIN Step-by-Step Procedure is: (continued)

5. Based on risk, human immunodeficiency virus (HIV) and Hepatitis B post-exposure prophylaxis (PEP) may be recommended and offered
6. As part of evaluation, baseline HIV, Hepatitis B and C (HBV), Hepatitis Alanine aminotransferase (ALT), and if indicated, RPR should be drawn

(Repeated HIV screenings may need to be done with private physician at 6 weeks, 12 weeks, and 6 months after exposure; in addition to HCV and ALT at 6 months post exposure)



# Objectives Review

- Describe how bloodborne pathogens are spread in the workplace/site
- Describe two risk factors that increase the likelihood for sharp injuries in a mass care setting
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- Describe the three (3) key steps to take in the event of an occupational exposure

The main focus of this training is preventing and responding to occupational exposures at OBHP sites.



# TRAIN Texas Assessment Instructions

Carefully read these instructions before launching the test/assessment/quiz on the TRAIN Texas website:

- Follow any and all on-screen directions
- Read each question carefully and choose ONE best answer. Select each answer in the circle that corresponds to the question number. Once you have made your final answer choice, move onto the next question.
- You will not be able to skip questions or go back to previous questions.
- When you have completed the test, your test score will be displayed on your computer screen.
- Once you pass the test, download your certificate of completion and send a copy to your direct supervisor/volunteer coordinator.
- Keep a digital or physical copy of this certificate on your person throughout the duration of OBHP



# Thank you!

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Please contact [phepphr11@dshs.texas.gov](mailto:phepphr11@dshs.texas.gov) if you have any questions, comments, or concerns regarding this training presentation or accompanied TRAIN Texas assessment!