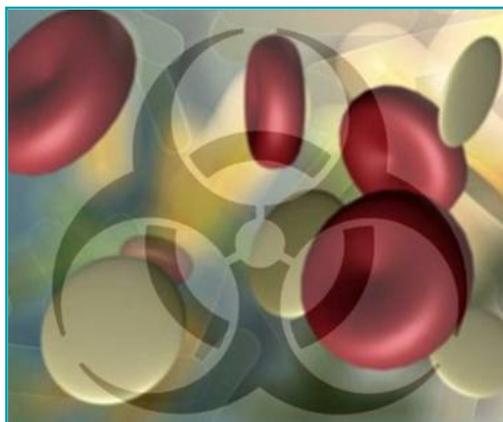




Bloodborne Pathogens Learner Course Guide

FY 2014-2015



To protect, promote & improve the health of all people in Florida through integrated state, county, & community efforts.



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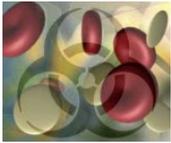


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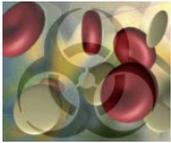


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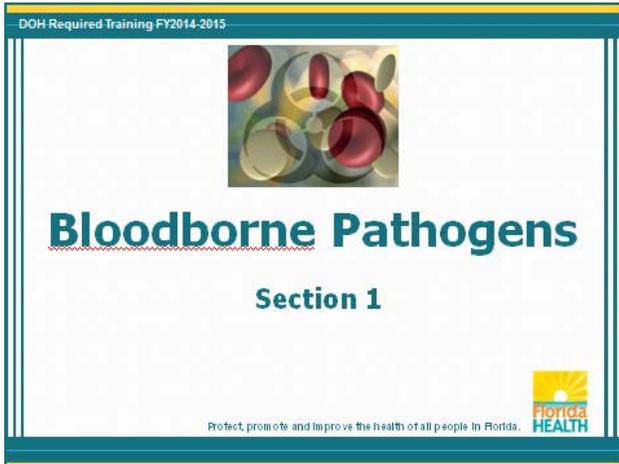
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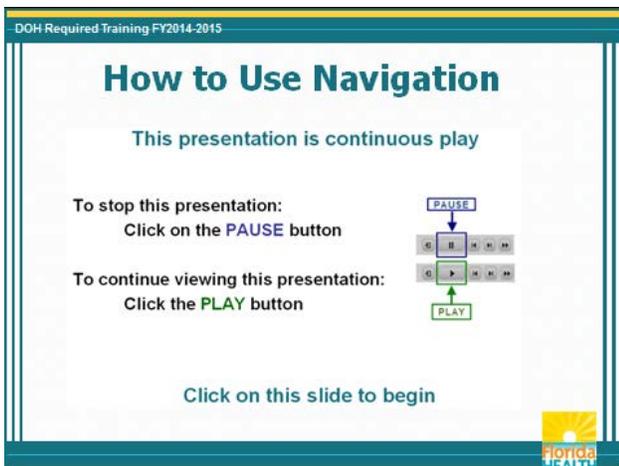
Section 1

Slide 1 - Title Slide Section 1



Welcome to Section 1 of the course Bloodborne Pathogens.

Slide 2 – How to Use Navigation



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Slide 3 – Course Goals

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Course Goals

- Identify & describe bloodborne pathogens
- Raise employee awareness of exposure hazards
- Educate & inform about workplace practices to prevent exposures



Occupational exposure to blood or other potentially infectious materials (OPIM) puts you at risk for serious illness or death.

The goal of this course is to review bloodborne pathogens, identify and describe the three bloodborne pathogens of most concern, and to raise employee awareness of worksite hazards that could lead to bloodborne pathogen exposure.

It will educate and inform you about workplace safety and prevention practices that will prevent, reduce, and avoid exposures.

Slide 4 – Course Objectives

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Course Objectives

- Define three most commonly known BBPs: HIV, HBV, HCV
- Define Occupational Exposure
- Increase awareness of tasks that might lead to exposure
- Review Exposure Controls
- Encourage completion of the Hepatitis B Series vaccine



In this presentation, we will define three of the most commonly known types of bloodborne pathogens that could be encountered in the workplace: Human Immunodeficiency Virus (HIV), Hepatitis B Virus (HBV) and Hepatitis C Virus (HCV).

We will define occupational exposure and increase your awareness of tasks in the workplace that may lead to exposure, as well as review of exposure controls, including encouraging completion of the Hepatitis B series vaccine by all at-risk employees.



Slide 5 – Bloodborne Pathogens

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Bloodborne Pathogens

Infectious micro-organisms that are present in human blood and can cause disease in humans

- Blood
- Cell Cultures
- Body Fluids
- HIV or HBV containing culture medium
- Tissue Samples
- HIV or HBV infected animal tissue
- Organs



Bloodborne pathogens are infectious micro-organisms in human blood that can cause disease in humans.

All occupational exposure to blood or other potentially infectious materials (OPIM) place workers at risk for infection with bloodborne pathogens. OSHA defines blood to mean human blood, human blood components, and products made from human blood.

OPIM include the following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids.

OPIM also covers any unfixed tissue or organ other than intact skin from a human living or dead; HIV-containing cell, tissue or organ cultures; HIV or HBV containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

Slide 6 – Bloodborne Pathogens - Body Fluids

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Bloodborne Pathogens

Body Fluids

- Semen
- Vaginal Secretions
- Amniotic
- Cerebrospinal
- Synovial
- Pleural
- Pericardial
- Peritoneal
- Menstrual
- Saliva
- **ANY** unidentified body fluids



This is a list of the body fluids that may carry and transmit bloodborne pathogens.

Remember that contact with infectious body fluids can result in an exposure and potential infection.

These body fluids include semen (fluid from the male genitals), vaginal secretions (fluid from the female genitals), amniotic (fluid that protects the fetus throughout pregnancy), cerebrospinal (fluid surrounding spinal cord and brain), synovial (fluid that lubricates joint surfaces), pleural (fluid lining the lungs and chest cavity), pericardial (fluid surrounding the heart), peritoneal (fluid contained in the abdominal and pelvic area), menstrual fluids, saliva from dental procedures, and **any** unidentifiable body fluid.



Slide 7 – Bloodborne Pathogens - Workplace Transmission

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Bloodborne Pathogens

Workplace Transmission

- Contaminated source blood
- Direct contact with infected blood/fluids
- Non-intact skin
- Mucous membranes (eyes, nose, mouth)
- Injection / punctures / lacerations
- Contaminated materials / surfaces
- Contaminated bandages / dressings



Workplace transmission of bloodborne pathogens can occur in a number of different ways.

If the source blood is contaminated, if there is a direct route of entry into the body through mucous membranes in the eyes, nose or mouth, through non-intact skin, or by injections, punctures, or lacerations from contaminated sharps.

Transmission can also occur through direct contact with surfaces or materials contaminated with infected blood or bodily fluids, and from contaminated or saturated bandages or dressings.

Slide 8 - Bloodborne Pathogens (3 Viruses)

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Bloodborne Pathogens

Human Immunodeficiency Virus (HIV)	
Hepatitis B Virus (HBV)	
Hepatitis C Virus (HCV)	



There are many bloodborne pathogens that could put employees at risk of infection in the workplace. This course highlights three of the bloodborne pathogens of most concern that could be encountered.

These are the Human Immunodeficiency Virus (HIV), Hepatitis B Virus (HBV), and Hepatitis C Virus (HCV).

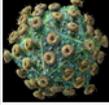
Let's examine each of these more closely.



Slide 9 – Bloodborne Pathogens: Human Immunodeficiency Virus (HIV)

Perhaps the most well-known bloodborne pathogen is Human Immunodeficiency Virus or HIV.

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Bloodborne Pathogens: HIV

- HIV is the virus that leads to AIDS
- HIV attacks the immune system
- Symptoms may include:
fever (most common), swollen glands, night sweats, sore throat, headache, rash, muscle & joint aches, nausea
- Patient may be asymptomatic



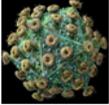
HIV is the virus that leads to Acquired Immunodeficiency Syndrome or AIDS. An individual infected with HIV may be asymptomatic for many years before it progresses to AIDS. HIV attacks a person's immune system, which makes it difficult for the body to fight off disease.

Acute HIV is a highly infectious phase of the disease, that lasts approximately two months, and is characterized by nonspecific clinical symptoms. Symptoms may include: fever (most common), swollen glands, night sweats, sore throat, headache, rash, muscle and joint aches, and nausea. In later stages of the disease, victims can develop opportunistic infections, skin lesions, types of cancer, and other chronic health conditions. It is important to remember that some people who are HIV infected have no symptoms.

Slide 10 – Bloodborne Pathogens: Human Immunodeficiency Virus (HIV) II

There is no vaccine against HIV. There is no cure for HIV.

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Bloodborne Pathogens: HIV

- **No vaccine against HIV/No cure for HIV**
- Blood to blood/body fluid contact
- HIV infection window - 21 days or less
- Needles or Sharps = 0.3%
- Mucous Membrane = 0.09%
- 4-week post-exposure prophylaxis (PEP)
- Does not survive well outside body



HIV is transmitted through blood-to-blood contact via any unprotected sexual contact, perinatally, breastfeeding, occupational exposures such as sticks with contaminated needles or sharps, and direct contact with infected blood or body fluids. Most people will develop detectable antibodies within 2 to 8 weeks (the average is 25 days); However the newer HIV 4th generation test, a combination antigen/antibody screening test narrows the "window period" time to 21 days or less, and the use of sensitive supplemental and NAAT testing will further narrow that time allowing for the detection of persons who are in acute or early HIV infection. Confirmatory and follow up HIV testing will be based on the type of testing utilized. Per the updated guidelines in 2013, if newer 4th generation testing is utilized for follow up of HIV testing of exposed HCP, HIV testing may be concluded 4 months after exposure. If newer testing is not available, follow up testing is typically concluded 6 months after an exposure. Average risk of transmission from infected contaminated needles or sharps is up to 0.3%; while mucous membrane exposure is up to 0.09%. In the case of a workplace exposure to HIV, a 4-week course of medication, known as post-exposure prophylaxis (PEP), may be provided after an exposure to reduce the chance of HIV transmission. The decision to use PEP is made by the assessing doctor/provider. Scientists and medical authorities agree that HIV does not survive well outside the body. Drying HIV-infected blood or other bodily fluids reduces the risk of transmission to nearly zero.



Slide 11 – Bloodborne Pathogens: Hepatitis B (HBV)

Another bloodborne pathogen of concern is the Hepatitis B virus (HBV).

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Bloodborne Pathogens: Hepatitis B (HBV)

- Inflammation of the liver
- Can lead to liver disease, liver cancer, death
- Symptoms include: jaundice, fatigue, abdominal pain, anorexia, loss of appetite, nausea, vomiting, dark urine, light stools, flu-like symptoms
- Patient may be asymptomatic or show few symptoms



Hepatitis B virus is the most common cause of chronic liver disease worldwide. Hepatitis B is a contagious liver disease and can be either “acute” or “chronic”.

Hepatitis B causes irritation and swelling/ inflammation of the liver due to infection with the virus. If infected, a person may have no symptoms or may be sick for a period of days or weeks. If their body is able to fight off the Hepatitis B infection, any symptoms should go away over a period of weeks to months. People who have chronic Hepatitis B may have few or no symptoms but are still contagious. Untreated infection with Hepatitis B can lead to chronic liver disease, liver cancer, and death. The symptoms of Hepatitis B are jaundice, fatigue, abdominal pain, anorexia, loss of appetite, nausea, vomiting, dark urine, light stools and flu-like symptoms. Symptoms may not appear for up to six months after the time of infection.

Slide 12 – Bloodborne Pathogens: Hepatitis B (HBV) II

An effective vaccination for Hepatitis B is available.

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Bloodborne Pathogens: Hepatitis B (HBV)

- Has an effective vaccine
- Blood and body fluid contact
- Infection window – 6 weeks to 6 months
- 10 times more contagious than HIV
- Transmission risk = 6-30%
- Survives one week outside body



More about this invaluable vaccination will be presented at the end of this presentation.

Hepatitis B is transmitted through blood and body fluids via any unprotected sexual contact, sharing injection drug equipment, mother to infant during delivery, household contact with an infected person, tattooing and body piercing, human bites, occupational exposures such as sticks with contaminated needles or sharps, and direct contact with infected blood or body fluids.

Hepatitis B is highly contagious and the virus is very resilient. HBV is approximately 10 times more contagious than HIV after a needle stick exposure. The risk of transmission is 6 – 30%. HBV can survive in dried blood at room temperature on an environmental surface at least one week.



Slide 13 – Bloodborne Pathogens: Hepatitis C (HCV)

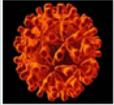
The third bloodborne pathogen of concern is the Hepatitis C virus (HCV).

Hepatitis C virus (HCV) infection is the most common chronic bloodborne infection in the United States.

Hepatitis C is usually spread via blood. Today, most people become infected by sharing needles or other equipment to inject drugs.

Like Hepatitis B, Hepatitis C causes irritation and swelling/ inflammation of the liver due to infection with the virus. People who are infected with Hepatitis C may not even be aware that they are infected because they may not feel or show signs of illness. Hepatitis C can often lead to chronic liver disease and death. Liver disease occurs in approximately 70 percent of infected people. Symptoms, when they do appear, are similar to Hepatitis B including jaundice, fatigue, loss of appetite, nausea, vomiting and abdominal pain. It is important to note that as many as 80 percent of victims have no symptoms. It can sometimes take decades before symptoms are recognized.

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Bloodborne Pathogens: Hepatitis C (HCV)

- Inflammation of the liver
- Often leads to liver disease, and death
- If symptoms appear they include: jaundice, fatigue, loss of appetite, nausea, vomiting, abdominal pain
- 80% of patients never show symptoms or feel ill

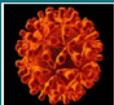


Slide 14 – Bloodborne Pathogens: Hepatitis C (HCV) II

There is no vaccine against Hepatitis C.

Hepatitis C is transmitted through blood and body fluids via sharing injection drug equipment, perinatally, blood or organ transplant prior to 1992, receiving clotting factors prior to 1987, long term hemodialysis, tattooing and body piercing, occupational exposures such as sticks with contaminated needles or sharps, and direct contact with infected blood or body fluids. HCV is rarely transmitted via sexual contact. The infection window for onset of symptoms if they occur is 3 weeks to 6 months. The average risk of infection after exposure to HCV is approximately 1.8%. The prevalence of HCV infection among healthcare workers is 10 times lower than that for HBV infection. The Hepatitis C virus can survive outside the body at room temperature, on environmental surfaces, for at least 16 hours but no longer than 4 days.

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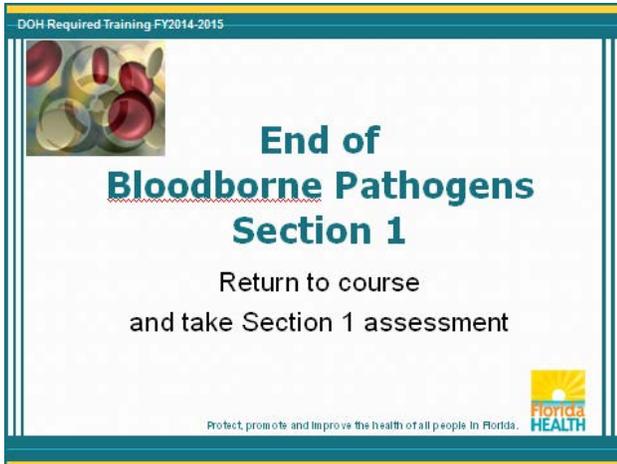
Bloodborne Pathogens: Hepatitis C (HCV)

- **No vaccine against Hepatitis C**
- Blood and body fluid contact
- Infection window - 3 weeks to 6 months
- Transmission risk = 1.8%
- Infection among health workers 10 times lower than HBV
- Survives 16 hours but not longer than 4 days outside body





Slide 15 – End of Section 1

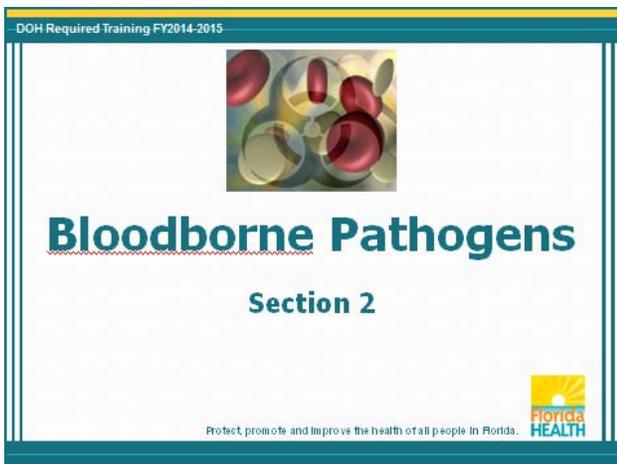


This concludes Section 1, Bloodborne Pathogens

Please return to the course registration management page and take the Section 1 assessment then proceed to Section 2.

Section 2

Slide 1 – Title Slide Section 2



Welcome to Section 2 of the course Bloodborne Pathogens.



Slide 2 – How to Use Navigation



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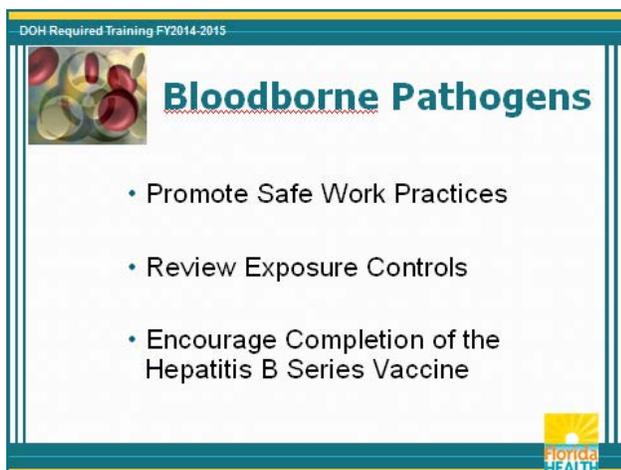
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Slide 3 – Bloodborne Pathogens Section Introduction



The intent of this section is to promote safe work practices and to provide a work environment that minimizes risk for occupational exposure to transmissible bloodborne pathogens.

Primary prevention of an occupational bloodborne exposure is accomplished by establishing guidelines, procedures, education of employees, utilization of appropriate work practices, engineering controls and protective equipment, utilizations of appropriate vaccines and hygienic work conditions.

Let's continue by reviewing exposure controls and discuss the Hepatitis B series vaccine for at-risk employees.



Slide 4 – Bloodborne Pathogens - Occupational Exposure

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Bloodborne Pathogens Occupational Exposure

Examples of anticipated contact with blood/body fluids resulting from job duties:

- Handling blood/body fluids & specimens
- Dental procedures
- Invasive procedures
- Cleaning
- Giving injections
- Handling biomedical waste

Have occupational exposure protocols in place



The Occupational Safety and Health Administration (OSHA) defines Occupational Exposure as “reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee’s duties.”

Some job duties that may present risk of exposure include collecting or handling blood or body fluids & specimens, performing dental procedures, performing invasive procedures, cleaning contaminated surfaces & instruments, administering injections, and handling biomedical waste.

The facility should have an occupational exposure protocol in place. The protocol is a list of directions showing employees what to do if they are exposed to blood or body fluids on the job, potentially exposing them to bloodborne pathogens.

Slide 5 – Bloodborne Pathogens - Exposure Controls

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Bloodborne Pathogens Exposure Controls

- Promote worker safety & safe working environment
- Exposure Control Plan
- Eliminate or minimize exposure to bloodborne pathogens
- OSHA Bloodborne Pathogen Standard



OSHA promotes the right to a safe and healthy workplace for employees and requires employers to use hazard controls to lower employee risk and train employees in safety measures. In regard to bloodborne pathogens in the workplace, these hazard controls are assembled into an exposure control plan directing the minimization or elimination of exposures to bloodborne pathogens.

The exposure control plan is based on the OSHA Bloodborne Pathogen Standard 29 CFR 1910.1030. The Bloodborne Pathogen Standard covers all employees whose job responsibilities put them at risk for exposure to bloodborne pathogens. It provides guidance for employers to ensure maximum employee safety with regard to occupational exposure to bloodborne pathogens.



Slide 6 – Bloodborne Pathogens - Exposure Controls II

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Bloodborne Pathogens Exposure Controls

Plan located in:

- Supervisor or manager's office, per local CHD
- Areas of exposure risk to blood / body fluids

Documents in Plan:

- Biomedical Waste/Florida Administrative Code
- Biomedical Waste Plan
- Occupational Exposure Protocol
- OSHA Bloodborne Pathogen Standard 29 CFR 1910.1030



Copies of the Exposure Control Plan are routinely located in the supervisor's or manager's office for clinical areas where there is a risk of exposure to blood and other potentially infectious materials (OPIM). Each CHD should review the location of the plan, per their local policy, with staff, initially through employee orientation/training and during annual staff updates.

Other locations the ECP plan may be found are the Nursing Administration office, Medical Director's office, Epidemiology office or Administration. The following documents should be included in the Exposure Control Plan: the Biomedical Waste/Florida Administrative Code, Biomedical Waste Plan, Occupational Exposure Protocol, and the OSHA Bloodborne Pathogen Standard 29 CFR 1910.1030.

Slide 7 – Bloodborne Pathogens - Exposure Controls III

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Bloodborne Pathogens Exposure Controls

- Work practice controls
- Engineering controls
- Personal protective equipment (PPE)
- Standard precautions
- Housekeeping policies
- Safer needle regulations

Let's review each of these...



This section discusses types of exposure controls required by OSHA to be applied in the workplace to minimize bloodborne pathogen exposures.

They include work practice controls, engineering controls, and the use of Personal Protective Equipment or PPE.

Controls also include following Standard precautions, following pre-set housekeeping policies, and adherence to the safer needle regulations detailed in the Bloodborne Pathogen Standard (revised 2001) as part of the Needle Stick Safety & Protection Act (2000).

Let's review each of these.





Slide 8 – Bloodborne Pathogens - Exposure Controls (work practice controls)

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Bloodborne Pathogens Exposure Controls

Work practice controls reduce exposure by altering performance of workplace tasks

- Proper hand washing
- Immunization of employees



Work practice controls reduce the likelihood of exposure by altering the manner in which a task is performed. The most effective of which, per the CDC, is proper hand washing, followed by reducing disease exposure through immunization.

If hand washing facilities with soap and running water are not available, an appropriate antiseptic hand cleaner in conjunction with clean cloth, paper towels or antiseptic towelettes should be provided as long as hands are washed with soap and running water as soon as feasible.

All health care personnel who have a reasonable chance of exposure to blood or body fluids are strongly encouraged to be immunized, especially with the Hepatitis B vaccine.

Slide 9 – Bloodborne Pathogens - Exposure Controls (engineering controls)

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Bloodborne Pathogens Exposure Controls

Engineering controls: devices that isolate/remove pathogen hazards from the workplace

- Sharps containers
- Red bags
- Self-sheathing needles
- Eye wash stations
- Hand washing facilities



Engineering controls are structural or mechanical devices that isolate or remove bloodborne pathogen hazards from the workplace.

Examples of engineering controls include properly labeled and/or identified sharps containers, red bags, eye wash stations, and hand washing facilities.



Slide 10 – Bloodborne Pathogens - Exposure Controls (personal protective equipment)

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Bloodborne Pathogens Exposure Controls

Personal Protective Equipment (PPE): specialized clothing & equipment worn for protection against hazards

- Gloves
- Masks/Respirators
- Eye Protection
- Face Shields
- CPR Shields
- Gowns
- Aprons
- Laboratory Coats



Personal Protective Equipment, or PPE, is defined as specialized clothing or equipment worn by an employee for protection against a hazard.

PPE is acceptable to be worn if it prevents potentially contaminated blood or body fluids from contaminating clothes, undergarments, skin, eyes, mouth, or other mucous membranes of the employee. The supervisor for your workplace should know the location of the PPE within your workplace.

Personal Protective Equipment (PPE) most often includes gloves, masks or respirators, eye protection, face shields, CPR shields, gowns, aprons, and laboratory coats.

Slide 11 – Bloodborne Pathogens - Exposure Controls (personal protective equipment) II

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Bloodborne Pathogens Exposure Controls

To prevent transmission of bloodborne pathogens when using PPE:

- Check your body for cuts, scrapes, other broken skin
- Remove PPE before leaving
- Turn PPE inside out
- Discard PPE in same area used



Personal protective equipment should be worn and handled with extreme awareness. If PPE has been penetrated with blood or OPIM, check your body for cuts, scrapes, or other non-intact skin when removing PPE.

To prevent transmission of bloodborne pathogens to others and to prevent contamination of environmental surfaces, PPE must be removed before leaving the work area. Turn PPE wrong side out when removing and discard in the area where it was used.



Slide 12 – Bloodborne Pathogens - Exposure Controls (Standard Precautions)

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Bloodborne Pathogens Exposure Controls

*** Standard Precautions is the primary infection control strategy set by the Centers for Disease Control (CDC)**

- Apply to all patients
- **Include organisms spread by:**
 - Blood
 - All human body fluids, secretions and excretions, regardless of visible blood (except sweat)
 - Non-intact skin, mucous membranes

* In 1996, the CDC replaced Universal Precautions with Standard Precautions



Standard Precautions is the primary infection control strategy set by the Centers for Disease Control and Prevention (CDC). They are applied to all patients, and are designed to minimize the risk of catching an infection from a patient or spreading infection among patients.

Standard Precautions integrate and expand Universal Precautions to include organisms spread by: Blood, all human body fluids, secretions, and excretions except sweat, regardless of whether they contain blood, non-intact skin, and mucous membranes.

Universal Precautions was first introduced in 1987 to prevent the spread or the transmission of blood borne pathogens to the health care providers. Standard Precautions is the outgrowth of Universal Precautions.

The concept of Standard Precautions was established to expand the course of Universal Precautions and in 1996 the CDC replaced Universal Precautions with Standard Precautions.

Slide 13 – Bloodborne Pathogens - Exposure Controls (housekeeping policies)

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Bloodborne Pathogens Exposure Controls

Housekeeping policies: methods for cleaning surfaces & equipment, to protect employees from the spread of disease

- Use appropriate PPE
- Use disinfectant (1:10 bleach/approved solution)
- Clean all equipment & work surfaces:
 - After contact with blood/body fluids
 - Completion of procedures
 - After any spill of blood/body fluids
 - End of the work shift



Housekeeping policies involve methods for cleaning work surfaces and equipment, to help protect employees from the spread of disease transmitted by bloodborne pathogens to items or areas in the workplace.

Appropriate personal protective equipment (PPE) and an approved disinfectant are to be used while cleaning up potentially infectious materials. A 1:10 bleach solution, or a commercial solution that has been approved for use in clinical areas are appropriate disinfectants.

All equipment and environmental work surfaces shall be cleaned and decontaminated after contact with blood or body fluids, after completion of procedures, after any spill of blood or body fluids, and at the end of the work shift.



Slide 14 – Bloodborne Pathogens - Exposure Controls (housekeeping policies) II

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Bloodborne Pathogens Exposure Controls

Housekeeping Policies: **SPILL CLEANUP**

- Gather the Spill Kit
- Use appropriate PPE
- Contain spill with absorbent materials
- Use appropriate disinfectant
- Place materials and PPE in red bag
- Dispose of bag per BMW plan
- **Wash hands**



In order to keep employees as well as patients safe from potential infection or contamination from bloodborne pathogens, spill cleanup in work areas must be performed carefully while following certain procedures.

These procedures include gathering items to clean with or a designated “spill kit”, putting on and using appropriate personal protective equipment (PPE), containing the spill with absorbent materials and using an appropriate disinfectant according to label instructions.

The “now contaminated” materials should be placed in a red bag along with used PPE. The bag should then be disposed of according to the biomedical waste (BMW) plan. Anyone involved in the spill clean up should then wash their hands thoroughly.

Slide 15 – Bloodborne Pathogens - Exposure Controls (housekeeping policies) III

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Bloodborne Pathogens Exposure Controls

Housekeeping Policies: **SHARPS CLEANUP**

- Call for help & stop traffic
- Do not use hands, use:
 - Dust pan & broom
 - Cardboard
 - Forceps or tongs
- Place into sharps container
- Dispose of container per BMW plan
- **Wash hands**



In order to be keep employees as well as patients safe from potential infection or contamination from bloodborne pathogens, clean up of potentially contaminated sharps, such as broken glass or equipment in work areas, must be performed carefully while following certain procedures.

Immediately after the incident, call for help and stop traffic in the affected work area by cordoning it off. Do not use hands to pickup sharps; instead use a broom and dust pan, cardboard, forceps or tongs.

Place all sharps into a designated sharps container. Dispose of the sharps contained according to the biomedical waste (BMW) plan. Anyone involved in the clean up should then wash their hands thoroughly.



Slide 16 – Bloodborne Pathogens - Exposure Controls (safer needle regulation)

DOH Required Training FY2014-2015



Bloodborne Pathogens Exposure Controls

Safer Needle Regulation

The Needle Stick Safety & Prevention Act (2000)

- Employers identify, evaluate, and make use of effective and safer medical devices annually
- Employers comply with safer needle regulations in Bloodborne Pathogens Standard (rev. 2001)
- Train employees in proper use of new devices, to reduce or eliminate worker exposures



The Needle Stick Safety & Prevention Act (2000) directed OSHA to amend the Bloodborne Pathogens Standard (revised 2001) to establish in greater, detail requirements that employers identify and make use of effective and safer medical devices.

The revision specifies in greater detail the engineering controls, such as safer medical devices, which must be used to reduce or eliminate worker exposure. OSHA requires every employer that uses sharp medical devices on humans, and has at least one employee, to comply with the safer needle regulations detailed in the Bloodborne Pathogen Standard.

Employers are required to follow these guidelines annually and to train employees on the use of any new devices acquired in order to more efficiently reduce or eliminate potential exposures. This must be done whether or not device failures or injuries/exposures have occurred.

Slide 17 – Bloodborne Pathogens - Exposure Incident Procedure

DOH Required Training FY2014-2015



Bloodborne Pathogens Exposure Incident Procedure

- Wash, Flush, or Irrigate direct exposure thoroughly:
 - **Wash** - needlesticks and cuts with soap and water
 - **Flush** - splashes to the nose, mouth, or skin with water
 - **Irrigate** - eyes with clean water, saline, or sterile irrigants
- Report the incident right away to supervisor
- Immediately seek medical treatment



Occupational exposures to bloodborne pathogens are considered to be urgent medical conditions needing timely medical evaluation and management.

It is critical to know what to do if you experience a workplace direct exposure to bloodborne pathogens. If you experience a needlestick, a sharps injury (non-needle), or are directly exposed to blood or OPIM at work: **wash, flush or irrigate** the areas of exposure thoroughly – these can include needlesticks and cuts by other sharps to your skin, and splashes of contaminated fluids to mucous membranes such as eyes, nose and mouth. Use soap and water to wash sticks and cuts, use clean water, saline, or sterile irrigants to flush or irrigate splashes to mucous membranes.

Report the exposure incident to your supervisor or appropriate designee in your CHD immediately, and follow your local CHD procedures as you seek immediate medical treatment. These may include contact with a workman's comp provider, or post-exposure prophylaxis (PEP) procedures.



Slide 18 – Bloodborne Pathogens - Post Exposure Prophylaxis (PEP)

DOH Required Training FY2014-2015



Bloodborne Pathogens Post Exposure Prophylaxis

- Post exposure management & PEP use is an important part of workplace exposure controls
- PEP is the use of antiretroviral medication to prevent transmission of bloodborne pathogens
- PEP regimens should contain 3 or more antiretroviral drugs for all HIV exposures
- PEP regimens should start as soon as possible after HIV exposure & continue for 4 weeks



Preventing exposures to blood and body fluids, also known as primary prevention, is the most important strategy for preventing occupationally acquired human immunodeficiency virus (HIV) infection.

However, in the case of an exposure incident the management of the exposure and use of appropriate post exposure prophylaxis (PEP) is an important part of workplace exposure controls.

PEP is the use of antiretroviral medications to prevent transmission of bloodborne pathogens, such as HIV, after an occupational exposure incident. PEP medication regimens for all occupational exposures to HIV should contain 3 or more antiretroviral drugs.

The post exposure prophylaxis regimens should start as soon as possible after the occupational exposure to HIV, and should be continued for four weeks.

Slide 19 – Bloodborne Pathogens - Post Exposure (evaluation)

DOH Required Training FY2014-2015



Bloodborne Pathogens Post Exposure

Evaluation:

- Treated as workers' compensation injury
- Contact workers' comp. provider immediately
- Occupational exposures are urgent medical conditions
- Treatment must begin immediately - a few hours after exposure, e.g. PEP
- National Clinicians Post-Exposure Prophylaxis Hotline 888-448-4911



Exposure to potentially infectious blood or body fluids that occurs as a result of occupational duties or employment shall be treated as a workers' compensation injury.

In the event of an exposure incident, the local unit supervisor or designee should immediately make certain the workers compensation provider is called on behalf of the employee and notified of the urgent need for medical evaluation when they arrive to the provider as occupational exposures are urgent medical conditions, and they may need immediate treatment such as post-exposure prophylaxis (PEP) which should be administered a few hours after exposure. If you need immediate assessment about PEP you can contact the National Clinicians Post-Exposure Prophylaxis Hotline – 888-448-4911 for help. The PEP line is available 9:00 a.m. to 2:00 a.m. ET, 7 days per week. Also you may want to review the updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Post-Exposure Prophylaxis.

A link to this information can be found on the Resource Information page in the Learner Guide to this course.



Slide 20 – Bloodborne Pathogens - Post Exposure (follow-up)

DOH Required Training FY2014-2015



Bloodborne Pathogens Post Exposure

Follow-Up May Include:

- Supervisor's written Investigation Report
- I.D. of source patient
- Source patient's HIV status and documentation
- More info: Technical Assistance Guideline (TAG) 345-11-12, Bloodborne Pathogen Standard



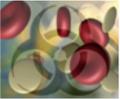
There may be other activities required when following up on an exposure incident. Refer to your local CHD policy or procedures and supervisor.

A supervisor's written Investigation Report may be required as well as the identification of the source patient and documentation of the patient's HIV status if known, unless such information is unknown, infeasible to obtain or prohibited by state or local law.

For additional information/guidance, refer to the Technical Assistance Guideline TAG 345-11-12, Bloodborne Pathogen Standard.

Slide 21 - Hepatitis B Vaccine

DOH Required Training FY2014-2015



Hepatitis B Vaccine

- All at risk employees should get HBV Vaccine
- **Hepatitis B Vaccine is free to all at risk employees & volunteers**
- Safe and very effective
- Declining HBV vaccine? Must sign: *Hepatitis B Vaccine Declination Statement*
- May choose vaccine at later date



DOH supports preventative immunization programs for employees who are exposed to vaccine-preventable diseases in the course of their employment.

Those health care personnel having a reasonable chance of exposure to blood or body fluids are strongly encouraged to receive Hepatitis B vaccine.

This highly effective vaccine is offered **free** to all employees, and volunteers at risk of exposure in the workplace, per State of Florida policy DOHP 365-1-05, TAG 350-11-13, and section 110.501 Florida Statutes. The Hepatitis B vaccine has been used effectively since its licensing in the United States in late 1981. Severe problems are extremely rare. Severe allergic reactions are believed to occur about once in 1.1 million doses. More than 100 million people have safely gotten the Hepatitis B vaccine in the United States.

Employees who are at risk for occupational exposure and decline the vaccine series, must sign the *Hepatitis B Vaccine Declination Statement*, per OSHA regulations. However, even if the vaccine is declined, the employee may choose to receive the vaccination at a later date.



Slide 22 - Hepatitis B Vaccine II

DOH Required Training FY2014-2015



Hepatitis B Vaccine

- Series of 3 vaccines
- 80-100% Effective
- Long term protection
- Immunity-Possibly for life



The Hepatitis B Vaccine is actually a series of three (3) vaccines given over a 6 month period.

If the #2 or #3 dose is delayed, it is not necessary to restart the series. After completing the entire series, approximately 90 – 95% of healthy individuals develop adequate antibodies; the HBV vaccine is 80-100% effective in preventing Hepatitis B infection, or clinical hepatitis, after the series is completed.

The Hepatitis B vaccine offers long term protection; if a recipient of the vaccine developed adequate immunity after the initial series years ago, they should still be protected from Hepatitis B. Although immunity may decline over time, the immune response remains intact longer than 20 years to a lifetime. Booster doses of Hepatitis B vaccine may be recommended in certain circumstances. Employees should discuss with their medical provider.

For additional information, contact your immunization department or visit the CDC's website at www.cdc.gov/vaccines.

Slide 23 - Hepatitis B Vaccine III

DOH Required Training FY2014-2015



Hepatitis B Vaccine

- Non-responders – 5-15%
- Poor antibody response to vaccine
- Susceptible to Hepatitis B infection
- Counsel to avoid exposure/infection
- Use Standard precautions



It is important to note that some people will not develop the adequate antibody response after completing two full series of the Hepatitis B vaccine.

These people are called non-responders and represent an estimated 5-15 % of people who receive the vaccine. There are a few reasons that may cause non-response to the HBV vaccine. They are age, increased body mass, male gender, smoking, chronic disease, or genetic determination as well as vaccine factors including dose, schedule, and injection site. Non-responders are considered susceptible to Hepatitis B infection and are counseled regarding prevention of Hepatitis B infection.

It is especially important for non-responders to use Standard precautions.



Slide 24 – Florida Health and Safety Policies

The State Surgeon General of the Florida Department of Health has set policies to address the health and safety of the employees, agents, volunteers, visitors and clients of the Department.

Florida Department of Health (DOH) -Technical Assistance Guideline: TAG 345-11-12 -Bloodborne Pathogens Standard (revised December 2012). Section II (two) states: *The Florida Department of Health (DOH) is committed to providing a safe and healthy work environment for our entire staff and is responsible for the implementation of an Exposure Control Plan (ECP) in accordance with state and national standards as defined by Occupational Safety and Health Administration (OSHA) and the Centers for Disease Control and Prevention (CDC). In pursuit of this endeavor, the prevention of and treatment for occupational exposures to bloodborne pathogens will be executed in accordance with the directives and standards as defined by OSHA, the U.S. Public Health Service (USPHS), CDC, the Florida Statutes (F.S.), and the Florida Administrative Code (F.A.C.).*

OSHA's ECP procedures will function as the key document to assist the Department of Health in implementing and ensuring compliance with OSHA standards designed to protect employees from exposure to bloodborne pathogens. The department will maintain, review, and update this ECP to maintain compliance with state and national standards.

Note - A county health department (CHD) may have a written ECP protocol for the provision of PEP onsite. If this is the case, refer to your local CHD's ECP policy.

DOH Required Training FY2014-2015



Florida Health and Safety Policies

Florida Department of Health (DOH)
TAG: 345-11-12 Bloodborne Pathogens Standard

- Promotes a safe, healthy work environment
- Follows national laws and standards:
 - OSHA
 - USPHS
 - CDC
- Follows Florida Statutes & Florida Administrative Code



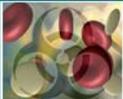
Slide 25 – Resource Information

This presentation includes a copy of TAG 345-11-12 - Bloodborne Pathogens Standard and a listing of health and safety links for your future reference.

Please Note – TAG 345-11-12 will be updated in December of 2014.

You must review this resource information to complete this course.

DOH Required Training FY2014-2015



Resource Information

This presentation includes a copy of
 * TAG 345-11-12 and a listing of health and safety links for your future reference.

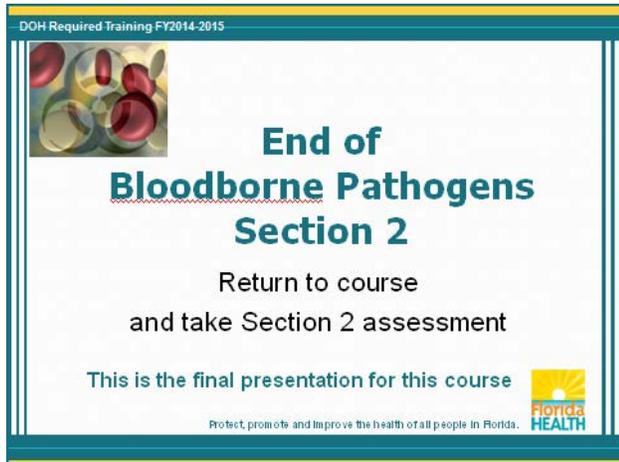
You must review this resource information to complete this course.

* **NOTE:** TAG 345-11-12 will be updated in December 2014






Slide 26 – End of Section 2 and End of Course



This completes the Bloodborne Pathogens course. Please return to the course registration management page and take the Section 2 assessment.

We would like to thank:

The Florida Department of Health, Division of Disease Control, HIV/AIDS & Hepatitis Section

The Orange County Health Department

The Duval County Health Department, and

The State of Florida, Department of Financial Services, Division of Risk Management, Loss Prevention

for providing invaluable resources for the production of this course.



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Appendix I - RESOURCE INFORMATION

2014-2015 Bloodborne Pathogens - Health and Safety Links – Page 1

Occupational Safety & Health Administration (OSHA) - www.osha.gov/index.html

Centers for Disease Control and Prevention (CDC) - www.cdc.gov

Immunization Action Coalition - www.immunize.org

National HIV/AIDS Clinicians' Consultation Center - www.nccc.ucsf.edu/

** Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Post-Exposure Prophylaxis:

<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5011a1.htm>

** Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HIV and Recommendations for Post-Exposure Prophylaxis:

<http://stacks.cdc.gov/view/cdc/20711>

National Clinicians Post-Exposure Prophylaxis Hotline – **888-448-4911**

http://www.nccc.ucsf.edu/about_nccc/pepline/

CDC – Emergency Needlestick Information <http://www.cdc.gov/niosh/topics/bbp/emergnedl.html>

CDC – Hepatitis resources– <http://www.cdc.gov/hepatitis/index.htm>

FL Department of Health (DOH) – Hepatitis Prevention Program –

http://www.doh.state.fl.us/disease_ctrl/aids/hep/index.html

FL Department of Health (DOH) – HIV/AIDS & Hepatitis Section –

http://www.doh.state.fl.us/disease_ctrl/aids/

U.S. Food and Drug Administration (FDA) -

<http://www.fda.gov/ForConsumers/byAudience/ForPatientAdvocates/HIVandAIDSActivities/default.htm>

American Nurses Assoc. NursingWorld - www.needlestick.org

HIV/AIDS Informational Links –

<http://www.cdc.gov/hiv/links.htm>

<http://www.niaid.nih.gov/topics/hivaids/Pages/Default.aspx>

<http://www.thebody.com/>



Appendix I - RESOURCE INFORMATION

2014-2015 Bloodborne Pathogens - Health and Safety Links – Page 2

Florida's Omnibus AIDS ACT - http://www.doh.state.fl.us/disease_ctrl/aids/legal/Omnibus_2010.pdf

Lab Interpretation Links

Lab Tests Online Hepatitis B - http://labtestsonline.org/understanding/analytes/hepatitis_b/test.html

Lab Tests Online Hepatitis C - http://labtestsonline.org/understanding/analytes/hepatitis_c/test.html