Bloodborne Pathogens
2013 Update

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Introduction

In order to protect workers from occupational exposure to potentially infected blood and blood products, the Occupational Safety and Health Administration (OSHA) issued the Bloodborne Pathogens Standard (29 CFR 1910.1030), which became effective March 6, 1992. The OSHA standard (29 CFR 1910.1030) requires initial training and an annual update. The objective of this 2013 update is to provide new information relative to regulatory developments or to relevant occupational matters as they pertain to bloodborne risk exposure and prevention. Legislative developments and laws on a state-by-state basis **are not included in this update**. However it can be accessed via separate resources, i.e. www.cdc.-gov/niosh/topics/bbp/ndl-law-1.html. This 2013 update also serves as an information source for 29 CFR 1910.1030 training requirements.

OSHA's Standard Interpretations

OSHA requirements are set by statute, standards and regulations. OSHA standard interpretations include workplace inquiries regarding application of the Bloodborne Pathogen Standard that have arisen during 2012. This section serves as a guide for similar scenarios which may occur at UAW-GM worksites. Specific state statues and directives should be accessed for specific state requirements.

OSHA's position on confidentially of post-exposure evaluations as it relates to Bloodborne Pathogens?

On November 10, 2009, Director Fairfax received a letter regarding small health care facilities. The letter specifically asks about OSHA's position regarding the confidentiality of employee post-exposure evaluation results as it pertains to the Bloodborne Pathogens Standard 29 CFR 1910.1030.

Scenario: A small healthcare facility with physicians on staff is concerned about acceptable procedures for offering post-exposure follow-up and counseling to employee(s) involved in exposure incident(s).

Question 1: Are employers required to send employee to an outside physician in the event of an exposure incident for the post-exposure evaluation? Is it a breach of confidentiality for one of our physicians to perform the post-exposure evaluation?

Response 1: In accordance with 29 CFR 1910.130(f)(3), a confidential medical evaluation and follow-up must be made immediately available to employee(s) after the report of an exposure incident. The standard does not prohibit facilities from offering the post-exposure evaluation and follow-up on-site, if a mechanism is in place to ensure confidentiality. The boundary between employer and healthcare professional may be blurred in a medical setting in which, for example, the physician is both the employer and the evaluating healthcare professional. It would be inappropriate for the post-exposure medical evaluation to be done by a person who also supervises the exposed employee(s). In circumstances where the employer cannot ensure employee confidentiality from an in-house evaluation and follow-up, the option of independent (outside) post-exposure testing and evaluation must be used.

Question 2: Is it acceptable to have portable fans in work areas such as phlebotomy collection rooms? Would the use of the fans in these areas compromise the integrity of the specimens of patient safety?

Response 2: The use of personal fans for personal cooling is acceptable in the workplace setting depending on how the fans are listed and labeled. 29 CFR 1910.303(b)(2) requires that listed or labeled equipment shall be used or installed in accordance with any instructions included in the listing or labeling. Also, the use of fans

should be such that it does not create a greater hazard to employees (e.g., it should not increase the chances of aerosolizing blood/specimen during collection or from an accidental spill).

What is the policy for Blood/Body Fluids disposal?

On June 2, 2009, Director Fairfax received a letter asking specific questions as it relates to the disposal of blood and other infectious waste.

Question 1: What are the policies of disposal of blood/body fluids and infectious waste? Is blood treated differently than other body fluids?

Response 1: The final disposal of all regulated waste must be in accordance with applicable regulations of the United States, States and Territories, and political subdivisions of States and Territories [29 CFR 1910.1030(d)(4)(iii)(C)].

OSHA's Bloodborne Pathogens Standard, 29 CFR 1910.1030, has provisions for the protection of employees during the containment, storage, and transport of regulated waste other than contaminated sharps [29 CFR 1910.1030(d)(4)(iii)(B)]. The bloodborne pathogens standard defines regulated waste as liquid or semi-liquid blood or other potentially infectious material (OPIM); contaminated items that would release blood or OPIM in a liquid or semi-liquid state if compressed; items that are caked with dried blood or OPIM and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or OPIM [29 CFR 1910.1030(b)].

In general, regulated wastes, other than contaminated sharps, must be placed in containers which are: (i) Closable; (ii) Constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping; (iii) Labeled or color-coded in accordance with paragraphs (g)(1)(i); (iv) Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping [29 CFR 1910.1030(d)(4)(iii)(B)(1)(i)-(iv)].

Question 2: Is it acceptable to dispose of items that have blood or body fluids present in either septic systems or normal garbage? If so, how much blood and body fluids can be present?

Response 2: Please see our reply to question #1 for OSHA's definition and requirements for containerization of regulated waste as well as information on the requirements for final disposal of regulated waste. It is the employer's responsibility to determine the existence of regulated waste. This determination is not based on actual volume of blood, but rather on the potential to release blood, (e.g., when compacted in the waste container).

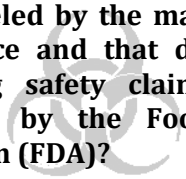
Question 3: What are the repercussions when addressing facilities where violations have been found on improper disposal, and what are the common disposal-related violations found during OSHA inspections?

Response 3: When OSHA conducts an inspection addressing regulated waste concerns, compliance with the Bloodborne Pathogens Standard is evaluated on a case-by-case basis. If OSHA determines that sufficient evidence exists that the standard has been violated, a citation carrying monetary penalties may be issued to the employer. Over the past 5 years, OSHA has issued numerous violations for improper containerization of regulated waste [i.e., violations of section 1910.1030(d)(4)(iii)(B)(1) of the Bloodborne Pathogens Standard].

Clarification of the use and selection of BBP safety devices

On May 5, 2008, Richard Fairfax, OSHA's Director, Directorate of Enforcement Programs, received an inquiry on clarification of the use and selection of Bloodborne Pathogen safety device if a device can be used even if it is not stated as safety.

Question 1: The OSHA Bloodborne Pathogens Standard requires employers to use engineering controls, such as appropriate "safety engineered" sharps. Can an employer select a device that is not expressly labeled by the manufacturer as a safety device and that does not have corresponding safety claims that have been cleared by the Food and Drug Administration (FDA)?



Response 1: As you know, employers are required to use engineering and work practice controls to protect employees [29 CFR 1910.1030(d)(2)(i)]. The standard defines engineering controls as "controls (e.g., sharps disposal containers, self-sheathing needles, safer medical devices, such as sharps with engineered sharps injury protections and needleless systems) that isolate or remove the bloodborne pathogens hazard from the workplace." [29 CFR 1910.1030(b)]. With regard to safety-engineered devices used for preventing needlesticks and other sharps injuries, many circumstances would involve the use of safety-engineered devices which are expressly manufactured to replace conventional ones (i.e., sharps with safety engineered sharps injury protections, SESIPs). These devices generally bear a manufacturer's label indicating the type of safety feature along with specific instructions for use. However, the key to preventing needlesticks and other sharps injuries is the isolation or removal of the hazard, and in some circumstances, this may be achieved by completely removing the sharp (needleless technology) or substituting a safer alternative that is not necessarily labeled as such.

As an example, the use of plastic hypodermic syringes has largely replaced the use of glass syringes as an effective safer alternative. Plastic syringes are less prone to accidental breakage and, therefore, offer protection from potential percutaneous injuries from broken contaminated glass. Plastic syringes however, do not necessarily bear a legend of this safety benefit. Another example is the use of alternatives to glass capillary tubes which break easily. In a joint safety advisory on hazards associated with the use of glass capillary tubes, the FDA, NIOSH and OSHA recommended the use of capillary tubes that are not made of glass and glass capillary tubes wrapped in a puncture-resistant film. These alternatives also represent safety-engineered features in that they remove or isolate the sharps hazard.

It is important that employers perform a thorough hazard assessment and fully evaluate the feasibility and appropriateness for use of any engineering control before instituting its use [29 CFR 1910.1030(c)(1)(iv)(B)]. The substitution of a type of device or technology that does not bear a manufacturer's claim of safety must not introduce new hazards nor in itself create a hazard to employees. Additionally, employers should consult device manufacturers prior to making any after-market modifications to medical devices. Unauthorized modifications to medical devices may interfere with their intended use, may violate the FDA's approval of the device, or may create a greater hazard to patients and/or employees. You may wish to contact the FDA directly for additional information on the criteria which manufacturers must meet and the specific labeling requirements for all medical devices, including those with claims of safety-engineering features or capabilities.

Question 2: May an employer make an independent judgment that a device marketed with other claims and for other purposes provides the type of safety-engineered protection anticipated by the standard? If so, what level of documentation or testing is the employer

required to have to demonstrate the validity of such judgments?

Response 2: As stated in response #1, the substitution of an alternative device or technology that does not bear a manufacturer's claim of safety must not introduce new hazards nor in itself create a hazard to employees. The requirement for evaluation and selection of a safety device is a performance-oriented provision which depends greatly on the specific medical device and medical procedure(s) in question. Devices must be evaluated for their ability to prevent occupational exposures to blood or Other Potentially Infectious Materials (OPIM) in each procedure. The final determination of what safer device is selected for use is a responsibility of the employer; however, when evaluating and selecting safer devices, employers must solicit input from non-managerial employees responsible for direct patient care who are potentially exposed to injuries from contaminated sharps [29 CFR 1910.1030(c)(1)(v)]. The input from affected employees must be factored into the employer's judgment of the appropriateness for use of a particular safety device.

With regard to the documentation needed to justify selection of safety devices, employers are required to have an exposure control plan which includes the initial exposure determination required by 29 CFR 1910.1030(c)(2) as well as the documentation of the methods of compliance, which includes implementation of engineering controls [29 CFR 1910.1030(c)(1)(ii)(A) and 1910.1030(c)(1)(ii)(B)]. The exposure control plan must be reviewed and updated annually to include documentation of the employer's consideration of newer technology [29 CFR 1910.1030(c)(1)(iv)(A) and 1910.1030(c)(1)(iv)(B)]. The standard does not specify the level of detail that must be included in this documentation; however, sufficient information must be provided to substantiate the facility's judgment. As discussed in the preamble of the Final Rule, consideration and implementation of safer medical devices could be documented in the Exposure Control Plan by describing the safer devices identified as candidates for adoption; the method or methods used to evaluate devices and the results of the evaluations; and justification for selection decisions. [See 66 Federal Register 5319, under discussion of paragraph 1910.1030(c)(1)(iv).]

Information obtained from the OSHA.gov website.

Are sharp's containers required to be secured?

On April 18, 2008, Director Fairfax responded to a letter regarding the measures a laboratory must take to keep sharps containers in an upright position.

Question: In a laboratory where sharps containers are kept close to employees' workstations with lids and are positioned so that they are kept upright, is it necessary to have "mechanisms" to restrain the containers as a precaution from spillage?

Reply: As you may know, 29 CFR 1910.1030(d)(4)(iii)(A)(2)(ii), requires that during use, containers for contaminated sharps must be: "maintained upright throughout use. . ." The use of mechanisms to restrain sharps containers is one way of preventing spillage during use; however, the Bloodborne Pathogens Standard does not specify the use of restraining mechanisms for all situations of sharps container use. For example, if a workplace assessment reveals that sharps containers can be maintained in an upright position during use with no danger of being knocked over or spilled, or that the containers must remain unrestrained to accommodate mobility needs, or employees or patients might be endangered by fixed sharps containers (e.g., in a mental health or correctional facility), the use of restraining mechanisms would not be mandatory. The placement of sharps containers, as well as the measures used to maintain them in an

upright position during use, must be based on the site-specific hazard assessment of the area of intended use.

Information obtained from OSHA.gov website.

Can the written program be kept solely in an electronic format?

On April 8, 2008, Director Fairfax received a letter regarding the requirements of various standards for a written program. The letter specifically asks whether written programs may be kept solely in an electronic format. This letter constitutes OSHA's interpretation only of the requirements discussed and may not be applicable to any question not delineated within this correspondence.

As you pointed out in your letter, a number of standards require programs that are written and accessible to all employees on site. Examples of these provisions are 29 CFR 1910.1030(c)(1)(i) and 1910.1030(c)(1)(iii) (bloodborne pathogens), 29 CFR 1910.1200(e)(1) and 1910.1200(e)(4) (hazard communication), and 29 CFR 1910.146(c)(4) (permit-required confined spaces). Traditionally, these programs have been kept in separate binders in appropriate work areas in order to comply with the standards. Maintaining multiple copies of these manuals can be both challenging and time-consuming.

You have also stated that placing safety materials, programs, checklists, and forms on a company intranet can provide significant benefits in consistency, ease of use, and accuracy in maintaining and updating these materials in a timely manner. And, just as hard copy programs can be photocopied upon request, so can an electronic version be printed out upon request.

Computers are much more common in the workplace now than when most OSHA standards were written. We agree that in many instances electronic access to programs could be beneficial. Therefore, OSHA would allow a written program to be in either paper or electronic format, as long as the program meets all other requirements of the standard in question.

Where the standard requires that the written program must be made available to employees, the employer must ensure that employees know how to access the document and that there are no barriers to employee access.

Information obtained from OSHA.gov website.

Bloodborne Pathogen OSHA Citation News

This section serves as a guide in learning what types of citations are being issued by OSHA on bloodborne pathogens in the workplace.

The following citations are examples of citations for bloodborne pathogen related violations.

OSHA News Release dated January 19, 2011, cites a company in San Antonio with 20 workplace safety and health violations. The U.S. Department of Labor's Occupational Safety and Health Administration has issued Greenstar Mid-America LLC 10 serious and 10 other-than-serious citations after an inspection found that workers processing trash were not protected against hypodermic needle sticks and other hazards at the company's facility in San Antonio. Proposed penalties total $53,000.

"This company has put its workers' health at risk by potentially exposing them to bloodborne pathogens, such as hepatitis B," said Jeff Funke, director of OSHA's San Antonio Area Office. "In this case, it is fortunate that no evidence suggests any workers have contracted a disease."

OSHA's San Antonio Area Office initiated a safety and health inspection on July 28, 2010, at the company's facility on Cornerway Boulevard, following a complaint that employees were being stuck by hypodermic needles while sorting trash that was to be recycled.

Serious citations allege failure to provide puncture-resistant gloves for handling trash, provide a tie-off point to prevent employees from falling, use lockout/tagout procedures on machinery, provide a fire alarm system, ensure a fire evacuation plan was followed and ensure workers facing exposure to hepatitis B are vaccinated. A serious citation is issued when there is substantial probability that death or serious physical harm could result from a hazard about which the employer knew or should have known.

The other-than-serious citations allege failure to record injuries within a seven-day period, record restricted days, record days when workers were absent and complete logs with detailed information. An other-than-serious violation is one that has a direct relationship to job safety and health, but probably would not cause death or serious physical harm.

BBP OSHA Trade News

No BBP Updates for 2011 through June 1, 2013.

OSHA Trade News Release dated July 2, 2010, review Standard Improvement Project (SIP-III).

A proposed rule to revise and remove requirements within several OSHA standards that are outdated, duplicative or inconsistent. This rulemaking will keep OSHA standards up-to-date and will help employers better understand their regulatory obligations.

For example, OSHA is proposing in SIP-III to update the definition for "potable water" in the Sanitation standard (1910-141) with the current Environmental Protection Agency clean water standard. OSHA is also proposing to remove an outdated provision in the Bloodborne Pathogens standard (1910.1030) that requires employers to provide hand dryer's that use warm air. This will allow use of newer technologies that use room temperature air.

OSHA Trade News Release dated May 21, 2010, conducting a review of the Bloodborne Pathogen standard's value in protecting workers.

OSHA is conducting the review in accordance with the Regulatory Flexibility Act. Part of the review involves evaluating public comments to determine whether the standard causes a burden to small businesses and industry in general, and if the costs for putting the standard into practice are necessary for protecting workers' health. OSHA also considers if the standard conflicts with other federal, state and local government rules, and whether advancements in technology and economic conditions have changed the risks of exposure to bloodborne pathogens. These factors will help the agency decide if the rule should change or remain the same.

BBP UAW-GM Audit Summaries

The UAW-GM Health and Safety cumulative audit summaries include findings regarding bloodborne pathogens at UAW-GM plants. The summaries highlights plants which receive positive finds, need improvement and general area reminders in specific areas of 29CFR 1910.1030. Auditors noted that several employees had missed the required annual awareness training and there was no evidence of follow-up. Fifteen out of twenty-eight employees in one department did not receive the required training.

~~- No updates from 2012 Audit Summaries.~~

BBP Medical News

The following are various articles and news releases relative to bloodborne pathogen transmission and workplace issues. That is highlighted in this section of Medical News (see full report for entire coverage).

http://www.cdc.gov/hiv/resources/reports/mmwr/2011.htm

Morbidity and Mortality Weekly Reports from 2011:

- MMWR: HIV Risk, Prevention, and Testing Behaviors Among Men Who Have Sex With Men --- National HIV Behavioral Surveillance System, 21 U.S. Cities, United States, 2008, 2011 / 60(SS14);1-34
- MMWR: Clinical and Behavioral Characteristics of Adults Receiving Medical Care for HIV Infection --- Medical Monitoring Project, United States, 2007, 2011;60(SS11);1-20
- Characteristics Associated with HIV Infection Among Heterosexuals in Urban Areas with High AIDS Prevalence — 24 Cities, United States, 2006–2007, 2011;60(31):1045-1049
- HIV-2 Infection Surveillance — United States, 1987–2009 2011;60(29):985-988
- Sexual Transmission of Hepatitis C Virus Among HIV-Infected Men Who Have Sex with Men — New York City, 2005–2010, 2011;60(28):945-950
- MMWR: HIV Screening of Male Inmates During Prison Intake Medical Evaluation --- Washington, 2006—2010, 2011;60(24);811-813
- MMWR: Results of the Expanded HIV Testing Initiative --- 25 Jurisdictions, United States, 2007—2010, 2011;60(24);805-810
- Sexual Identity, Sex of Sexual Contacts, and Health-Risk Behaviors Among Students in Grades 9–12 — Youth Risk Behavior Surveillance, Selected Sites, United States, 2001–2009, 2011;60(Early Release);1-133
- Thirty Years of HIV — 1981–2011, 2011;60(21):689
- HIV Surveillance — United States, 1981–2008, 2011;60(21):689-693
- HIV Testing Among Men Who Have Sex with Men — 21 Cities, United States, 2008, 2011;60(21):694-699
- HIV Transmitted from a Living Organ Donor --- New York City, 2009 2011;60(10);297-301
- Premastication of Food by Caregivers of HIV-Exposed Children — Nine U.S. Sites, 2009–2010, 2011;60(09);273-275
- Increase in Newly Diagnosed HIV Infections Among Young Black Men Who Have Sex with Men—Milwaukee County, Wisconsin, 1999–2008, 2011;60(04);99-102
- Disparities in Diagnoses of HIV Infection Between Blacks/African Americans and Other Racial/Ethnic Populations—37 States, 2005–2008, 2011;60(04);93-98
- Interim Guidance: Preexposure Prophylaxis for the Prevention of HIV Infection in Men Who Have Sex with Men 2011;60(03);65-68

Frequently Asked Questions

Question: How long does protection from the Hepatitis B vaccine last?

Studies indicate that immunologic memory remains intact for at least 20 years among healthy vaccinated individuals who initiated Hepatitis B vaccination >6 months of age. The vaccine confers long-term protection against clinical illness and chronic Hepatitis B virus infection. Cellular immunity appears to persist even though antibody levels might become low or decline below detectable levels.

Question: Are booster doses of Hepatitis B vaccine recommended?

Booster doses of Hepatitis B vaccine are recommended only in certain circumstances:

- For **hemodialysis patients**, the need for booster doses should be assessed by annual testing for antibody to Hepatitis B surface antigen (anti-HBs). A booster dose should be administered when anti-HBs levels decline to <10mIU/mL.
- For **other immunocompromised persons** (e.g., HIV-infected persons, hematopoietic stem-cell transplant recipients, and persons receiving chemotherapy), the need for booster doses has not been determined. When anti-HBs levels decline to <10mIU/mL, annual anti-HBs testing and booster doses should be considered for those with an ongoing risk for exposure.

For persons with normal immune status who have been vaccinated, booster doses are not recommended.

Question: What is hepatitis?

"Hepatitis" means inflammation of the liver. Toxins, certain drugs, some diseases, heavy alcohol use, and bacterial and viral infections can all cause hepatitis. Hepatitis is also the name of a family of viral infections that affect the liver; the most common types are hepatitis A, hepatitis B, and hepatitis C.

Question: What is the difference between hepatitis A, hepatitis B, and hepatitis C?

Hepatitis A, hepatitis B, and hepatitis C are diseases caused by three different viruses. Although each can cause similar symptoms, they have different modes of transmission and can affect the liver differently. Hepatitis A appears only as an acute or newly occurring infection and does not become chronic. People with hepatitis A usually improve without treatment. Hepatitis B and hepatitis C can also begin as acute infections, but in some people, the virus remains in the body, resulting in chronic disease and long-term liver problems. There are vaccines to prevent hepatitis A and B; however, there is not one for hepatitis C. If a person has had one type of viral hepatitis in the past, it is still possible to get the other types.

Question: What is hepatitis B?

Hepatitis B is a contagious liver disease that ranges in severity from a mild illness lasting a few weeks to a serious, lifelong illness. It results from infection with the hepatitis B virus. Hepatitis B can be either "acute" or "chronic."

Acute hepatitis B virus infection is a short-term illness that occurs within the first 6 months after someone is exposed to the hepatitis B virus. Acute infection can — but does not always — lead to chronic infection.

Chronic hepatitis B virus infection is a long-term illness that occurs when the hepatitis B virus remains in a person's body.

Question: How common is chronic hepatitis B in the United States?

In the United States, an estimated 800,000 to 1.4 million persons have chronic hepatitis B virus infection.

Question: How is hepatitis B spread?

Hepatitis B is spread when blood, semen, or other body fluid infected with the hepatitis B virus enters the body of a person who is not infected. People can become infected with the virus during activities such as:

- Birth (spread from an infected mother to her baby during birth)
- Sex with an infected partner
- Sharing needles, syringes, or other drug-injection equipment
- Sharing items such as razors or toothbrushes with an infected person
- Direct contact with the blood or open sores of an infected person
- Exposure to blood from needlesticks or other sharp instruments

Question: Can a person spread hepatitis B and not know it?

Yes. Many people with chronic hepatitis B virus infection do not know they are infected since they do not feel or look sick. However, they still can spread the virus to others and are at risk of serious health problems themselves.

Question: Can hepatitis B be spread through sex?

Yes. Among adults in the United States, hepatitis B is most commonly spread through sexual contact and accounts for nearly two-thirds of acute hepatitis B cases. In fact, hepatitis B is 50–100 times more infectious than HIV and can be passed through the exchange of body fluids, such as semen, vaginal fluids, and blood.

Question: Can hepatitis B be spread through food?

Unlike hepatitis A, it is not spread routinely through food or water. However, there have been instances in which hepatitis B has been spread to babies when they have received food pre-chewed by an infected person.

Question: What are ways hepatitis B is not spread?

Hepatitis B virus is not spread by sharing eating utensils, breastfeeding, hugging, kissing, holding hands, coughing, or sneezing.

Question: Who is at risk for hepatitis B?

Although anyone can get hepatitis B, some people are at greater risk, such as those who:

- Have sex with an infected person
- Have multiple sex partners
- Have a sexually transmitted disease
- Are men who have sexual contact with other men
- Inject drugs or share needles, syringes, or other drug equipment
- Live with a person who has chronic hepatitis B
- Are infants born to infected mothers
- Are exposed to blood on the job
- Are hemodialysis patients

Travel to countries with moderate to high rates of hepatitis B

Question: If I think I have been exposed to the hepatitis B virus, what should I do?

If you are concerned that you might have been exposed to the hepatitis B virus, call your health professional or your health department. If a person who has been exposed to hepatitis B virus gets the hepatitis B vaccine and/or a shot called "HBIG" (hepatitis B immune globulin) within 24 hours, hepatitis B infection may be prevented.

Question: How long does the hepatitis B virus survive outside the body?

Hepatitis B virus can survive outside the body at least 7 days. During that time, the virus can still cause infection if it enters the body of a person who is not infected.

Question: How should blood spills be cleaned from surfaces to make sure that hepatitis B virus is gone?

All blood spills — including those that have already dried — should be cleaned and disinfected with a mixture of bleach and water (one part household bleach to 10 parts water). Gloves should always be used when cleaning up any blood spills. Even dried blood can present a risk to others.

Question: If I had hepatitis B in the past, can I get it again?

No, once you recover from hepatitis B, you develop antibodies that protect you from the virus for life. An antibody is a substance

found in the blood that the body produces in response to a virus. Antibodies protect the body from disease by attaching to the virus and destroying it. However, some people, especially those infected during early childhood, remain infected for life because they never clear the virus from their bodies.

Question: Does acute hepatitis B cause s symptoms?

Sometimes. Although a majority of adults develop symptoms from acute hepatitis B virus infection, many young children do not. Adults and children over the age of 5 years are more likely to have symptoms. Seventy percent of adults will develop symptoms from the infection.

Question: What are the symptom of acute hepatitis B?

Symptoms of acute hepatitis B, if they appear, can include:

- Fever
- Fatigue
- Loss of appetite
- Nausea
- Vomiting
- Abdominal pain
- Dark urine
- Clay-colored bowel movements
- Joint pain
- Jaundice (yellow color in the skin or the eyes)

Question: How soon after exposure to hepatitis B will symptoms appear?

On average, symptoms appear 90 days (or 3 months) after exposure, but they can appear any time between 6 weeks and 6 months after exposure.

Question: How long do acute hepatitis B symptoms last?

Symptoms usually last a few weeks, but some people can be ill for as long as 6 months.

Question: Can a person spread hepatitis B without having symptoms?

Yes. Many people with hepatitis B have no symptoms, but these people can still spread the virus.

Question: What are bloodborne pathogens?

Bloodborne pathogens are infectious microorganisms in human blood that can cause disease in humans. These pathogens include, but are not limited to, hepatitis B (HBV), hepatitis C (HCV) and human immunodeficiency virus (HIV). Needlesticks and other sharps-related injuries may expose workers to bloodborne pathogens. Workers in many occupations, including first aid team members, housekeeping personnel in some industries, nurses and other healthcare personnel may be at risk of exposure to bloodborne pathogens.

Question: What can be done to control exposure to bloodborne pathogens?

In order to reduce or eliminate the hazards of occupational exposure to bloodborne pathogens, an employer must implement an exposure control plan for the worksite with details on employee protection measures. The plan must also describe how an employer will use a combination of engineering and work practice controls, ensure the use of personal protective clothing and equipment, provide training , medical surveillance, hepatitis B vaccinations, and signs and labels, among other provisions. Engineering controls are the primary means of eliminating or minimizing employee exposure and include the use of safer medical devices, such as needleless devices, shielded needle devices, and plastic capillary tubes.

BBP Viruses, Statistics and Update

HIV Incidence Estimate – Information from the CDC

Incidence is the number of new HIV infections that occur during a given year.

HIV incidence is the measure of new HIV infections in a given period. In recent years, CDC has used new technology and methodology to more directly measure the number of new HIV infections in the United States. These incidence estimates are used to monitor the HIV epidemic in this country, and to guide policies and programs created to serve those communities and populations most affected by HIV.

CDC published new incidence estimates in the August 3, 2011, edition of the online scientific journal PLoS ONE using a refined methodology that allowed for a more precise 2006 incidence estimate (previously 56,300) as well as new estimates for 2007, 2008, and 2009. These new estimates showed that the annual number of new HIV infections was stable overall from 2006 through 2009.

- In 2006 there were an estimated 48,600 new HIV infections in the United States (95% confidence interval: 42,400-54,700)
- In 2007 there were an estimated 56,000 new HIV infections (95% confidence interval 49,100-62,900)
- In 2008 there were an estimated 47,800 new HIV infections (95% confidence interval: 41,800-53,800)
- In 2009 there were an estimated 48,100 new HIV infections (95% confidence interval: 42,200-54,000)

Bloodborne Training Updates

Note: Attached, Minnesota Safety Council Training

Educational Information

Needlestick Safety & Prevention

http://www.nursingworld.org/MainMenuCategories/WorkplaceSafety/Safeneedles

Training Tools

- Universal Precautions for Prevention of Transmission of HIV and Other Bloodborne Infection http://www.cdc.gov/niosh/topics/bbp/
- Bloodborne Pathogens Self Inspection List access; www.cdc.gov/niosh/docs/2004-101/chklists/n77blo~1.htm
- OSHA Assistance for the Cleaning Industry

New web page featuring information from OSHA and other organizations on types of hazards common to cleaning and maintenance; helpful for Bloodborne Pathogen standard

Access: www.dol.gov (type in cleaning industry)

Educational Posters

***Free, downloadable (see samples attached to this Update) via:

- www.cdc.gov/ncidod/diseases/hepatitis/resource/posters.htm
- www.cdc.gov/tb/events/WorldTBDay/posters.html
- World Aids Day: www.cdc.gov/Features/WorldAidsDay/

Bloodborne Training Review

State by State Bloodborne Pathogen

Requirements

Legislative developments and laws on a state-by-state basis are not included in the UAW-GM Bloodborne Pathogen Update. They may be accessed via state-wide resources, i.e. www.cdc.gov/niosh/topics/bbp (scroll to: overview state legislation)

Note: there may be addendums to the OSHA standard that affect your facility's Exposure Control Plan.

OSHA Compliance Directive

This is the latest updated compliance directive issued by OSHA for Bloodborne Pathogens. It contains revisions mandated by Needlestick Safety and Prevention act as well as the newly revised standard requirements. The directive has been designed for OSHA offices to direct them on compliance issues and citations regarding **29 CFR 1910.1030**. The directive has a comprehensive appendix of reference material, including sample engineering control evaluation forms, a website resource list and a copy of the CDC guidelines concerning the management of occupational exposures to HBV, HCV and HIV. The directive may serve as a guideline for interpreting and implementing components of the Bloodborne Pathogens Standard. The document is located on the OSHA website (CPL 2-2.69 (2001), November 27, 2001, "Enforcement Procedures for the Occupational Exposure to Bloodborne Pathogens."

UAW-GM Training Review

Bloodborne Pathogen Training Tool

A course instructor guide which outlines the time frames for each part of the course has been developed. It is available for use during Bloodborne Pathogen training at the UAW-GM Center for Human Resources (CHR).

UAW-GM Training Materials

Material order forms for Bloodborne Pathogens training materials should be faxed to: (313) 324-5065, Attention Mike Fray. The Materials Order Form (REG101) is available to those who access the UAW-GM Joint Activities System (JAS) website (www.uawgmjas.org). Training plans for the Bloodborne Pathogens classes should include placing an order for training materials four weeks prior to the training date. (Manuals updated in 2007).

Bloodborne Pathogen Class PPE

As a reminder, appropriate PPE needs to be provided for the Bloodborne Pathogen class. Disposable items required for training purposes should not be reused.

Exposure Determination List

According to **29 CFR 1910.1030**, it can be "reasonably anticipated" that certain job classification or duties will have exposure to blood or Other Potentially Infectious Materials (OPIM). The following job classifications identified for UAW-GM facilities are:

- Medical Department Personnel (Physicians, Nurses and others who provide aid or lab services)
- First Responders
- Fire Brigade
- Medical Department Janitors / Cleaners

Note: if there are circumstances in which additional required persons need to be added to the Exposure Determination List because of their job duties, this would be considered a local decision to be made by the Plant Safety Review Board (PSRB). These additional persons would need the UAW-GM Bloodborne Pathogen Training class.

Employees on the Exposure Determination List are required by the standard to receive annual interactive update training. These people must be offered the Hepatitis B Vaccination/Titer series. If these employees refuse the Hepatitis B Vaccination series, a signed declination is mandatory.

ECP Annual Update

The Exposure Control Plan and the annual updates are available through the UAW-GM Joint Activities System (JAS) website (www.uawgmjas.org). Through links - online

documents, health and safety training information

Annual Update Training Elements

There are 14 training elements which are required in the annual training along with any job tasks or changes that may occur throughout the year which fall under 29 CFR 1910.1030. The 14 training elements are:

1. **Accessibility and explanation of Bloodborne Pathogens Standard.**

In order to protect workers from occupational exposure to potentially infected blood and blood product, OSHA issued the Bloodborne Pathogens Standard, on March 6, 1992. (29 CFR 1910.1030). A copy of the standard should be made available at each facility for review. The standard covers the potential for exposure to human blood or Other Potentially Infectious Materials (OPIM).

2. **Explanation of the epidemiology and symptoms of Bloodborne Diseases.**

Bloodborne Pathogens can be present in blood or OPIM and can lead to life threatening diseases. The category of Bloodborne Pathogens covered by the OSHA standard includes several infectious diseases. Of these, there are three bloodborne pathogens that pose significant risks; Hepatitis B Virus (HBV), Hepatitis C Virus (HCV) and Human Immunodeficiency Virus (HIV). **(See Unit 1, Participant's Manual).** All three viruses may include flu-like symptoms, dark urine, and jaundice; however, there may be no symptoms at all. Left untreated, HBV and HCV can cause severe liver damage and other complications that could lead to death. HIV is a virus that attacks the body's immune system and it eventually leads to Acquired Immune Deficiency Syndrome (AIDS).

3. **Explanation of modes of transmission of bloodborne pathogens.**

Two conditions must occur at the same time in order for transmission to take place for HBV, HCV or HIV. Those conditions are: (1) the blood or OPIM to which one is exposed to is carrying pathogens. (2) the blood or OPIM is allowed to enter into the body.

HBV and HCV can be transmitted by contact with blood or OPIM through breaks in the skin, mucous membranes such as the eyes, nose and mouth; unprotected sexual contact; perinatal transmission; injection drug use with contaminated needles and syringes, and blood transfusion recipients prior to 1992.

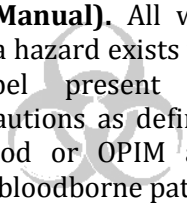
HIV can be transmitted via unprotected sex; injection drug use with contaminated needles and syringes; tattooing/body piercing with contaminated instruments and/or ink; prenatal and breastfeeding transmission; blood transfusion recipients prior to 1992 and receiving transplants of infected organs and tissues. **(See Unit 1, Participant's Manual).** Generally, it is important to remember that these three viruses are not transmitted by casual contact.

4. **Explanation of the Exposure Control Plan (ECP) and accessibility.**

The ECP is a customized document for each facility. It serves as a strategy that helps to reduce and/or eliminate the risk of exposure to bloodborne diseases. It is a key document that assists in implementing and ensuring compliance with the Bloodborne Pathogen Standard. Any changes that occur within a facility, including a person's job tasks that involve potential exposure to bloodborne pathogens, must be recorded and dated in the ECP immediately following the change and then communicated to anyone listed in the Exposure Determination List. **(See your facility's ECP, and Unit 2, Participant's Manual)**. The ECP is commonly recorded, updated and stored in the Medical Departments.

5. **Explanation of methods for recognizing tasks/activities that may involve exposure to blood or OPIM.**

Recognition of situations in which blood or OPIM may be present is critical. Potential for exposure varies with tasks/activities performed; i.e. medical personnel must recognize tasks involving blood or OPIM; sanitation workers cleaning medical facilities must recognize hazards in handling bio-hazardous containers, disinfecting potentially contaminated work surfaces, and they must also recognize hazards of cleaning- up blood spills or becoming injured by improperly discarded items in trash containers; security, fire brigade and first responders must recognize hazards posed by accidents involving blood or OPIM. **(See Unit 3, Participant's Manual).** All workers should recognize that a hazard exists when there is a biohazard label present and practice Universal Precautions as defined as treating all human blood or OPIM as if they are infected with a bloodborne pathogen.



29 CFR 1910.1030

6. **Explanation on use, limitations of methods that prevent/reduce exposure.**

Controlling the risk of exposure can be accomplished through a variety of measures including engineering controls, work practice controls, Personal Protective Equipment (PPE), and Universal Precautions. Engineering controls are physical or mechanical systems that help eliminate or reduce hazardous exposures. Work practice controls include hand washing, safe handling of sharps, proper removal and disposal of contaminated items, prohibiting eating, drinking smoking or performing personal hygiene practices (i.e. applying cosmetics, contacts, combing hair) in areas where there is possible exposure to blood or OPIM. **(See Unit 2, Participant's Manual).** Taking the protective measure of practicing Universal Precautions will minimize exposure to bloodborne pathogens.

7. **Information on types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment.**

Blocking the route of entry for bloodborne pathogens is possible by wearing appropriate PPE. Types of PPE include; gloves, protective eyewear, face masks or shields, resuscitation devices, gowns, lab coats, aprons, pants, head coverings, and foot coverings. PPE should be worn in any situation in which there may be a possible encounter with blood or OPIM. The most widely used PPE are gloves and should be located near the work area. Disposable latex-free gloves should be available. Instructions on proper use of equipment should be given to each designated person. **(See Unit 3, Participant's Manual).** (Detection for defects in PPE is critical for proper protection).

8. **Explanation of the basis for selection of personal protective equipment.**

Tasks involving exposure to blood or OPIM requires the use of PPE. Responding to medical emergencies, providing care to persons in which there is a possibility of blood or OPIM contact, cleaning & disinfecting blood spill or OPIM, cleaning & disinfecting equipment or areas/surfaces, or any other type of situation in which there is a possible exposure, will require different types of PPE.

9. **Information on Hepatitis B Vaccine, including information on its efficacy, safety, method of administration, benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge.**

The Hepatitis B Vaccine (HBV) is recommended as a precautionary measure to help reduce risk to HBV infection if there is an occupational exposure to bloodborne pathogens. It is offered to workers who have the potential of exposure as part of their job duties, free of charge. There are three forms that must be signed by the worker **(Note: Only once, and kept in employees file in Medical).** HBV Employee History Form, HBV Consent Form and HBV Declination Form. **(See Unit 1 Participant's Manual).** The vaccine is a non-infectious, yeast-based

vaccine. The vaccination procedure involves a timed series of three injections in the arm. It is to be offered within 10 days of assignment to a job where exposure is reasonably anticipated and/or if you are exposed to blood or OPIM within 24 hours while performing your job duties. HBV series is 90% effective in providing immunity from Hepatitis B infection.

10. Information on appropriate actions to take, persons to contact in an emergency involving blood or OPIM.

Instruction on Universal Precautions should precede the steps to follow in any situations involving possible blood or OPIM exposure. First contact a supervisor, medical personnel or designated first responder when there is an emergency incident involving blood exposure. Secondary, avoid direct contact with blood or OPIM by using appropriate PPE. Specific instructions should be given to the workforce on steps to take if a co-worker is bleeding, if first aid is being administered, or if a blood spill is being cleaned-up. **(See Unit 4, Participant's Manual).**

11. Explanation on procedure to follow if exposure incident occurs, including method of reporting incident and medical follow-up that will be made available.

Steps to reduce the risk of contracting a bloodborne disease include washing the affected skin areas immediately, flushing the mucous membranes immediately and reporting the incident to the medical department immediately. In a situation where one is responding to an incident, procedures include, management notification, use of Universal Precautions, comforting the injured person, and contacting trained and properly equipped personnel to decontaminate any equipment and work surfaces that might have come in contact with blood or OPIM. Reporting the exposure to the medical department will initiate the Report of Exposure to Blood and Body Fluids form to be filled out. **(See forms in Participant's Manual).** This report includes: date, time of exposure and specific details of the exposure. The medical department will provide a confidential medical evaluation, treatment and follow-up at no cost based on written consent of the person who had an exposure incident. **(See Unit 4, Participant's Manual).**

12. Information on the post-exposure evaluation and follow-up that is required following an exposure incident.

A Post Exposure and Follow-up Consent/Refusal Form needs to be filled out. Completion of the consent form enables the appropriate procedures to take place. **(See Unit 4, Participant's Manual).** Post exposure blood testing provides information on the virus status of the exposure, and, in states where applicable, the source individual's virus status; this blood testing requires consent from both parties. A confidential written opinion is provided after the medical evaluation is complete to the person who had an exposure incident.

13. Explanation of the BioHazard signs and labels and/or color-coding required.

Bags and containers used for disposal of regulated medical waste must be clearly labeled. "Biohazard" and/or the biohazard symbol must be used to warn of the actual or potential presence of blood or OPIM. **(See Unit 2, Participant's Manual).** Biohazard warning labels are usually fluorescent orange or orange-red. Red bags or red containers are also used to identify infectious waste.

14. Opportunity for interactive questions and answers with person conducting training.

Annual update training must include an interactive question/answer period with the trainer.

Website

www.uawgmjas.org

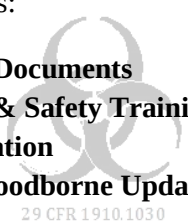
Log-in Access:

Sign-in then click the following icons:

- **My Web Links**
- **Health & Safety**
- **On Line Documents**
- **Health & Safety Training Information**
- **2013 Bloodborne Update**

No log-in Access:

- **Online Documents**
- **Health & Safety Training Information**
- **2013 Bloodborne Update**



General Resource Information

CDC Hepatitis Branch
www.cdc.gov/ncidod/diseases/hepatitis
1-888-443-7232

HIV/AIDS Kaiser Family Foundation
Source for national/state health data statistics www.statehealthfacts.org
1-650-854-9400

Morbidity & Mortality Weekly Reports
www.cdc.gov/mmwr

American Red Cross Workplace
AIDS Education Programs
www.redcross.org/services/hss/hivaids
contact local chapter or headquarters @
1-202-303-4498

American Liver Foundation
www.liverfoundation.org
1-212-6681000

Safe Needle/Save Lives
www.needlestick.org
1-800-274-4262

American Nurses Association

Centers for Disease Control (CDC)
Bloodborne Infectious Diseases
www.cdc.gov/niosh/topics/bbp
1-800-232-4636 or 1-800-cdc-info

CDC Workplace AIDS Education
www.hivatwork.org
1-877-242-9760

CDC Tuberculosis Elimination
www.cdc.gov/tb/pubs/default.htm
CDC: 1-800-232-4636

Hepatitis Foundation International
www.hepfi.org
1-800-891-0707

Food and Drug Administration (FDA) Vaccine Safety
www.fda.gov/cdrh/devadvice
1-888-463-6332

Environmental Protection Agency (EPA)
Antimicrobial Hotline
www.epa.gov
1-703-308-6411 M-F, 8-5 EST

Sharps Injury Programs
www.cdc.gov/sharpssafety

State by State Needle Safety Legislation
www.cdc.gov/niosh/topics/bbp/ndl-law.htm
1-800-232-4636

Safe Needle Device Database
www.ecri-org

2013 References

www.clevelandclinicmeded.com/hcv;
www.nursingworld.org
www.fdagov
aidsweekly 2010
www.statehealthfacts.org
www.aidshotline.org
www.cdc.gov/hiv/topics
www.cdc.go/hiv/resources
www.hepfi.org
www.cdc.gov/hiv/surveilance
www.cdc.gov/mmwr
www.cdc.gov/niosh/docs/chklists

www.osha.gov/interpretation
www.niaid.nih.gov/factsheets;
www.niosh.gov.eg/
www.facs.org/statements
www.immunize.org
www.drugdigest.org
www.medicalnewstoday.com
Journal Pharmaceutical Association
2012 UAW-GM Health and Safety Bloodborne Audit Summaries
OSHA Fact Sheet (Bloodborne Pathogen Exposure Incidents)
www.OSHA.gov/OshDoc/data_BloodborneFacts/bbfact04/pdf
www.cdc.gov/hepatitis/statistic.htm