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Employee Safety: OSHA's Guidelines, Requirements, and Regulations for Bloodborne Pathogens

Introduction

Bloodborne pathogens and bloodborne pathogen exposure incidents pose a significant risk to health care professionals. The question is, how can health care administrators work to improve employee safety, while reducing bloodborne pathogen exposure incidents? This course will answer that very question, while providing insight into related guidelines, requirements, and regulations provided by the Occupational Safety and Health Administration (OSHA).

Section 1: OSHA's Guidelines for Bloodborne Pathogens, Waste, Sharps, and Catheters

A health care professional is administering medications to a 72-year-old resident of a nursing home. After administering an intramuscular (IM) injection, the health care professional accidently sticks the right index finger with the needle that was just used to administer an IM medication to the resident. The health care professional immediately moves to the nearest sink, and removes the glove on the right hand. The health care professional observes blood on the right index finger. The health care professional then begins to rinse of the blood on the right index finger with running water. As warm water runs over the bleeding index finger, the health care professional begins to become concerned about bloodborne pathogens, and about what to do next.

A few hours later, a health care administrator becomes aware of the incident with the health care professional. After obtaining information about the incident and the health care professional involved in the incident, the health care administrator begins to consider OSHA's guidelines for bloodborne pathogens, and the following question; how can health care administrators work to improve employee safety, while reducing bloodborne pathogen exposure incidents?

In today's health care climate, the question posed at the end of the above scenario is an important question for consideration. Fortunately, there is a simple and straightforward answer to the previous question. Health care administrators can work to improve employee safety, while reducing bloodborne pathogen exposure incidents by following guidelines, requirements, and regulations outlined and provided by the Occupational Safety and Health Administration (OSHA) (note: Occupational Safety and Health Administration [OSHA] may refer to the regulatory agency of the United States Department of Labor responsible for ensuring safe and healthful working conditions for

workers by setting and enforcing standards and by providing training, outreach, education, and assistance). With that in mind, this section of the course will review OSHA's guidelines for bloodborne pathogens, waste, sharps, and catheters, while providing insight into bloodborne pathogens and universal/standard precautions. The information found within this section of the course was derived from materials provided by OSHA and the Centers for Disease Control and Prevention (CDC) unless, otherwise, specified (Occupational Safety and Health Administration [OSHA], 2021; Centers for Disease Control and Prevention [CDC], 2018).

What is a bloodborne pathogen exposure incident?

A bloodborne pathogen exposure incident may refer to any event involving one of more individuals and the potential or actual exposure to blood or other potentially infectious materials (OPIM) (e.g., semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, and amniotic fluid); a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or OPIM that results from the performance of an employee's duties.

What are bloodborne pathogens?

Bloodborne pathogens are infectious microorganisms in human blood that can cause disease in humans (e.g., virus).

Health care administrators should note the following examples of bloodborne pathogens: the hepatitis B virus (HBV), the hepatitis C virus (HCV), and the human immunodeficiency virus (HIV).

Who is at risk for bloodborne pathogens?

Any health care professional/employee who has reasonably anticipated contact with blood or OPIM (e.g., semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, and amniotic fluid) during performance of his or her job duties is considered to have occupational exposure and to be at risk of being infected.

How can health care professionals become exposed to bloodborne pathogens?

Health care professionals/employees working in a health care facility may be exposed to bloodborne pathogens in a variety of different ways including the following: coming into contact with patients' blood; coming into contact with OPIM; coming into contact with a patient's mucous membrane or non-intact skin; coming into contact with hazardous medical waste; through a sharps injury; through a needlestick injury; and/or when securing medical catheters.

Health care administrators should note the following: hazardous medical waste may refer to waste that may be potentially contaminated by blood, body fluids, or other potentially infectious materials; a sharps injury may refer to a stab wound or related wound that is caused by a scalpel, needle, and/or by another sharp object; a needlestick injury may refer to a wound that is caused by a needle that accidently punctures the skin; medical catheters may refer to tubes used in health care to deliver intravenous fluids and medications or to drain body fluids from a patient.

How likely is it for a health care professional to become infected by a bloodborne pathogen?

Viruses can potentially live outside of the human body for several minutes, hours, and/or days, depending on the virus. Therefore, it is possible for a health care professional/employee to become infected by a bloodborne pathogen, such as a virus (e.g., through a sharps injury/needlestick injury).

Health care administrators should note the following: according to information provided by the CDC, the estimated risk of HIV infection from a sharps injury/needlestick is about 0.3 percent (1 in 300); the chance of becoming infected with hepatitis B from a sharps injury/needlestick is estimated to be between six and 30 percent (CDC, 2019).

How can health care administrators and health care organizations work to reduce/prevent bloodborne pathogen exposure incidents?

Ensure universal precautions/standard precautions are followed - as previously mentioned, a bloodborne pathogen exposure incident may refer to any event involving one of more individuals and the potential or actual exposure to blood or OPIM; a specific

eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or OPIM that results from the performance of a employee's duties. One of the first methods that may initially come to mind when considering the prevention of bloodborne pathogen exposure incidents, is the use of universal precautions/standard precautions (note: universal precautions may refer to the practice of treating all human blood and OPIM as if known to be infectious for bloodborne pathogens; standard precautions may refer to infection control practices that may be used to prevent the transmission of diseases; the minimum infection prevention practices that apply to all patient care). The key elements of universal/standard precautions that may apply to the prevention of bloodborne pathogen exposure incidents include the following: hand hygiene; the use of personal protective equipment (PPE); sharps safety; safe injection practices; the safe handling of potentially contaminated equipment or surfaces in the patient environment; cleaning and disinfecting. Specific information regarding the aforementioned key elements of universal/standard precautions may be found below.

Hand Hygiene

- Hand hygiene may refer to a process of cleaning the hands in order to prevent contamination and/or the spread of infectious agents (e.g., viruses). Specific information and recommendations regarding hand hygiene may be found below.
- Effective hand hygiene occurs when dirt, soil, microorganisms, and other contaminants are removed from the hands.
- Effective hand hygiene may include hand washing with soap and water, and hand sanitizing with an alcohol-based handrub.
- Health care professionals may use a variety of different products to carry out effective hand hygiene. The following products are typically available to health care professionals and may be used to carry out effective hand hygiene: detergents, plain soap, antimicrobial (medicated) soap, antiseptic agents, and alcohol-based handrubs.
- Hand hygiene should be performed at the following key moments: when hands are visibly soiled; after barehanded touching of instruments, equipment, materials, and other objects likely to be contaminated by blood, saliva, or respiratory secretions; before and after treating each patient; before donning PPE; immediately after removing all PEE.

- Health care professionals should wash their hands with soap and water when they are visibly dirty or visibly soiled with blood or other body fluids or after using the toilet.
- Health care professionals should use an alcohol-based handrub when their hands are not visibly soiled to reduce bacterial counts.

Personal Protective Equipment (PPE)

- Personal protective equipment (PPE) may refer to equipment designed to protect, shield, and minimize exposure to hazards that may cause injury, illness, and/or disease. Specific information and recommendations regarding PPE may be found below.
- Effectively donning PPE can prevent the spread of infectious materials and agents to patients/health care professionals.
- PPE can include a variety of different types of equipment such as: masks, respirators, gowns, and gloves.
- Health care professionals should don medical procedure masks, otherwise referred to as surgical masks or disposable face masks, when deemed necessary or required (note: a medical procedure mask may refer to a single-use mask that is not made of cloth and is not designed to be washed or laundered).
- To effectively don a medical procedure mask, health care professionals should engage in hand hygiene before touching a mask; health care professionals should ensure the mask completely covers his or her mouth and nose. A health care professional should also ensure a mask fits snugly to the face and below the chin. Health care professionals should note that, often, masks can be secured to the head and neck via separate ties.
- To effectively remove a medical procedure mask, health care professionals should untie the bottom ties, if applicable, followed by the upper ties. The mask should then be pulled off and discarded in the appropriate waste container. A health care professional should not touch a contaminated mask. Health care professionals should wash their hands or use an alcohol-based hand sanitizer after removing a mask; health care professionals should wash their hands or use an alcohol-based hand sanitizer after removing all PPE.

- Respirators are relevant when considering PPE due to coronavirus disease 2019 (COVID-19) (note: coronavirus disease 2019 [COVID-19] may refer to a respiratory illness that can spread from person to person that is caused by a virus known as the severe acute respiratory syndrome coronavirus 2 [SARS-CoV-2]).
- A respirator may refer to a personal protective device that is worn on the face or head and covers at least the nose and mouth.
- A respirator is used to reduce the wearer's risk of inhaling hazardous airborne particles (including infectious agents), gases, or vapors.
- A N95 respirator may refer to a particulate-filtering, face piece respirator that filters at least 95% of airborne particles.
- Health care professionals should note that N95 respirators reduce the wearer's exposure to airborne particles.
- Health care professionals should note that N95 respirators are capable of filtering out all types of particles, including bacteria and viruses.
- A "fit test" may be required to determine the appropriate size respirator needed for each individual health care professional; health care professionals may also require training regarding how and when to use a respirator.
- Hand hygiene should be performed before donning a respirator.
- When donning a respirator, a health care professional should make sure the respirator completely covers his or her mouth and nose; health care professionals should also ensure the respirator fits snug to the face and below the chin; additionally, a health care professional should be sure the respirator is properly sealed.
- Health care professionals should note that achieving an adequate seal to the face is essential when wearing a N95 respirator.
- Health care professionals should note that when properly fitted and worn, minimal leakage should occur around the edges of the respirator when the user inhales.
- To effectively remove a respirator, a health care professional should untie the bottom ties, if applicable, followed by the upper ties; the respirator should then be pulled off and discarded in the appropriate waste container; a health care

professional should not touch a contaminated respirator. Health care professionals should engage in hand hygiene after removing respirators; health care professionals should wash their hands or use an alcohol-based hand sanitizer after removing all PPE.

- Health care professionals should note the following: a surgical N95 respirator (also referred as a medical respirator) is recommended only for use by health care professionals who need protection from both airborne and fluid hazards (e.g., splashes; sprays).
- Gowns that protect against microorganisms are available to health care professionals; for health care activities with low, medium, or high risk of contamination, surgical gowns may be used (note: the term surgical gown may refer to a type of gown intended to be worn by various health care professionals during surgical procedures**).**
- As with any type of PPE, the key to proper selection and use of a gown is to understand the hazards and the risk of exposure; some of the factors important to assessing the risk of exposure in health care facilities include: sources, modes of transmission, types of contact, and the duration and the type of tasks to be performed by the user of the PPE.
- Health care professionals should engage in effective hand hygiene before donning a gown.
- When putting on a gown, a health care professional should make sure the gown completely covers his or her torso from the neck to the knees; a gown should also completely cover a health care professional's arms and wrist; a gown should be wrapped around the back and fastened at the back of the neck and waist, when applicable.
- To effectively remove a gown, a health care professional should unfasten the gown's ties and pull the gown away from the neck and shoulders; when the gown is removed from the body, it should be rolled or folded and placed in the appropriate waste container.
- Health care professionals should engage hand hygiene after removing a gown; health care professionals should wash their hands or use an alcohol-based hand sanitizer after removing all PPE.

- Health care professionals should use gloves in situations involving possible contact with blood or body fluids, mucous membranes, and/or non-intact skin (e.g., exposed skin that is chapped, abraded, or with dermatitis).
- Nonsterile disposable patient examination gloves, which are used for routine patient care in health care settings, are appropriate for patient care.
- The use of gloves does not replace the need for hand hygiene.
- Gloves do not provide complete protection against hand contamination.
- Health care professionals should note that the prolonged use of gloves for contact precautions in the absence of considering the need to perform hand hygiene can result in the transmission of germs.
- Health care professionals should note that the use of contaminated gloves caused by inappropriate storage, inappropriate patient care moments, and techniques for donning and removing gloves, may also result in germ transmission.
- Typically, gloves are single-use items, glove decontamination and reprocessing are not recommended and should be avoided.
- The CDC does not recommend wearing double gloves when providing care to patients.
- Hand hygiene should be performed before donning gloves.
- When donning gloves, health care professionals should be sure to touch only a restricted surface of a glove corresponding to the wrist (e.g., at the top edge of the cuff).
- When wearing gloves, health care professionals should avoid touch contamination; touch contamination may refer to touching one's self and/or other surfaces such as tables, light switches, and doors while wearing gloves; touch contamination may lead to contamination and/or the passing of potentially infectious materials.
- Health care professionals should change their gloves as they administer care to different patients (i.e., a new patient means a new pair of gloves).
- Health care professionals should remove gloves after caring for a patient.

- To effectively remove a pair of gloves, a health care professional should use one gloved hand to grasp the palm area of the other gloved hand; once the health care professional has a firm grip on the palm of one gloved hand, the health care professional should then peel off the first glove; after removing the first glove, the health care professional should then hold that glove in one hand; using his or her fingers, the health care professional should slide the fingers off his or her ungloved hand under the remaining glove at the wrist and peel off the second glove right over the first glove; both gloves should then be placed in the appropriate waste container.
- Health care professionals should engage in hand hygiene after removing gloves; health care professionals should wash their hands or use an alcohol-based hand sanitizer after removing all PPE.

Sharps Safety

- Sharp safety may refer the practice(s) of adequately handling devices and/or objects with sharp points or edges that can puncture or cut the skin to help prevent injury from such devices and/or objects. Specific information and recommendations regarding sharp safety may be found below.
- Health care professionals should consider sharp items (e.g., needles) that are contaminated with patient blood and saliva as potentially infectious and establish engineering controls and work practices to prevent injuries.
- Health care professionals should not recap used needles by using both hands or any other technique that involves directing the point of a needle toward any part of the body.
- Health care professionals should use either a one-handed scoop technique or a mechanical device designed for holding the needle cap when recapping needles (e.g., between multiple injections and before removing from a non-disposable aspirating syringe).
- Health care professionals should place used disposable syringes and needles, scalpel blades, and other sharp items in appropriate puncture-resistant containers located as close as possible to the area where the item was used.

Safe Injection Practices

- Safe injection practices may refer to practices that are intended to prevent the transmission of infectious diseases between one patient and another, and/or between a patient and a health care professional during the preparation and administration of parenteral (e.g., intravenous or intramuscular injection) medications.
- Health care professionals should prepare injections using aseptic technique in a clean area.
- Health care professionals should disinfect the rubber septum on a medication vial with alcohol before piercing.
- Health care professionals should not use needles or syringes for more than one patient (note: this includes manufactured prefilled syringes and other devices such as insulin pens).
- Medication containers (e.g., single and multidose vials, ampules, and bags) should be entered with a new needle and new syringe, even when obtaining additional doses for the same patient.
- Health care professionals should use single-dose vials for parenteral medications when possible.
- Health care professionals should not use single-dose (single-use) medication vials, ampules, and bags or bottles of intravenous solution for more than one patient.
- Health care professionals should not combine the leftover contents of single-use vials for later use.
- Health care professionals should dedicate multidose vials to a single patient, when applicable.
- If multidose vials will be used for more than one patient, they should be restricted to a centralized medication area and should not enter the immediate patient treatment area to prevent inadvertent contamination.
- If a multidose vial enters the immediate patient treatment area, it should be dedicated for single-patient use and discarded immediately after use.

- Health care professionals should date multidose vials when first opened and discard within 28 days, unless the manufacturer specifies a shorter or longer date for that opened vial.
- Health care professionals should not use fluid infusion or administration sets (e.g., IV bags, tubings, connections) for more than one patient.

Safe Handling of Potentially Contaminated Equipment or Surfaces in the Patient Environment

- The safe handling of potentially contaminated equipment or surfaces in the patient environment may help prevent the transmission of infectious agents found on surfaces and/or objects. Specific information and recommendations regarding the safe handling of potentially contaminated equipment or surfaces in the patient environment may be found below.
- Health care professionals should wear appropriate PPE, when applicable.
- Health care professionals should handle equipment and or objects soiled with blood, body fluids, secretions, and excretions in a manner that prevents skin and mucous membrane exposures, contamination of clothing, and transfer of pathogens to health care professionals, patients, and/or the environment.
- Health care professionals should work to prevent skin and mucous membrane exposures and contamination of clothing, when applicable.
- Health care professionals should use adequate procedures for the routine cleaning and disinfection of environmental and other frequently touched surfaces, when applicable.
- Health care professionals should clean the countertops and surfaces where medication preparation occurs at least daily and when visibly soiled.
- Puncture-resistant, leak-proof sharps containers should be located in every patient-care area.
- All sharps should be disposed of in the designated sharps container; health care professionals should not bend, recap, or break used needles before discarding them into the container.

- Health care professionals should handle and treat waste contaminated with blood, body fluids, secretions, and excretions as clinical waste, in accordance with organizational and state/federal regulations.

Cleaning and Disinfecting Procedures

- Cleaning and disinfecting procedures may refer to any actions taken to remove infectious agents/materials from surfaces or objects. Specific information and recommendations regarding cleaning and disinfecting procedures may be found below.
- Cleaning surfaces and/or objects with a cleaning product that contains soap or detergent reduces the amount of germs on surfaces and decreases risk of infection from surfaces; disinfecting kills any remaining germs on surfaces and reduces the spread of infectious agents.
- Health care administrators should ensure the routine cleaning/disinfecting of frequently touched surfaces such as: tables, doorknobs, light switches, countertops, handles, desks, phones, keyboards, toilets, faucets, sinks, and any relevant health care-related equipment.
- Health care professionals should always follow the instructions on the label of a cleaning/disinfecting product; cleaning/disinfecting product labels should include instructions on how to use the product and specific instructions to keep individuals safe; many products recommend keeping the surface wet with a disinfectant for a certain period of time; health care professionals should keep cleaning/disinfecting products away from patients, especially children.
- If a disinfectant product does not have a cleaning agent, health care professionals should clean visibly dirty surfaces with household cleaners containing soap or detergent before disinfecting.
- Health care professionals should read disinfectant product labels to make sure the product meets relevant needs.
- Health care professionals should use the amount of cleaning/disinfecting product recommended on the label.
- If diluting with water is indicated for use on cleaning/disinfection product labels, health care professionals should use water at room temperature, unless stated otherwise on the cleaning/disinfection product label.

- Health care professionals should label all diluted cleaning/disinfection solutions, when applicable.
- Health care professionals should not not mix products or chemicals.
- Health care professionals should not eat, drink, breathe, or inject cleaning and disinfection products into the body or apply directly to the skin.
- Health care professionals should ensure adequate ventilation when using any cleaning/disinfection product (e.g., open a nearby window or door).
- Health care professionals should use gloves when using cleaning/disinfection products (note: additional PPE [e.g., goggles] may be required based on the cleaning/disinfection products being used and whether there is a risk of splash).
- Health care professionals should engage in hand hygiene after handling dirty laundry.
- Health care professionals should follow the manufacturer’s instructions for cleaning electronic devices.
- Health care professionals should use gloves when removing garbage bags and handling and disposing trash (note: additional PPE [e.g., goggles] may be required based on whether there is a risk of splash when removing garbage bags and handling and disposing trash).
- Health care professionals should engage in hand hygiene after removing garbage bags and after the handling and disposing of trash.

Provide bloodborne pathogen education and training to employees and use labels and signs to communicate hazards

Additional methods that may initially come to mind when considering the prevention of bloodborne pathogen exposure incidents may include employee bloodborne pathogen education and training and utilizing labels and signs to communicate hazards. Specific information regarding OSHA's guidelines/requirements for employee bloodborne pathogen education and training/utilizing labels and signs to communicate hazards may be found below.

- Employers must ensure that employees receive regular education and training regarding bloodborne pathogens.

- Employee bloodborne pathogen education and training should include the following: information on bloodborne pathogens and diseases; methods used to control occupational exposure; hepatitis B vaccine, and medical evaluation and post-exposure follow-up procedures.
- Employee bloodborne pathogen education and training should include the following information: if an individual is stuck by a needle or other sharp or gets blood or other potentially infectious materials in the eyes, nose, mouth, or on broken skin, the individual should immediately flood the exposed area with water and clean any wound with soap and water or a skin disinfectant if available; the individual should immediately report the incident to relevant health care administrators/employers and seek immediate medical attention.
- Employers must offer employee bloodborne pathogen education and training on initial assignment, at least annually thereafter, and when new or modified tasks or procedures affect an employee's occupational exposure.
- HIV and HBV laboratory and production health care facility employees must receive specialized initial training, in addition to the training provided to all employees with occupational exposure, when applicable.
- Employees must have the opportunity to ask the trainer questions.
- Employee bloodborne pathogen education and training must be presented at an educational level and in a language that employees understand.
- Employers should maintain employee bloodborne pathogen education and training records.
- Employees should receive education regarding labels and signs that communicate hazards.
- Warning labels must be affixed to the following: containers of regulated waste; containers of contaminated reusable sharps; refrigerators and freezers containing blood or OPIM; other containers used to store, transport, or ship blood or OPIM; contaminated equipment that is being shipped or serviced; and bags or containers of contaminated laundry (note: some health care facilities may use red bags or red containers instead of labels).

Establish and follow an exposure control plan, identify and use engineering controls, and identify and ensure the use of work practice controls

Exposure control plans, engineering controls, and work practice controls can help prevent bloodborne pathogen exposure incidents. Specific information regarding OSHA's guidelines/requirements for exposure control plans, engineering controls, and work practice controls may be found below.

- An exposure control plan may refer to a written plan to eliminate or minimize occupational exposures.
- Engineering controls may refer to devices that isolate or remove the bloodborne pathogen hazards from the workplace (e.g., sharps disposal containers, self-sheathing needles, and safer medical devices, such as sharps with engineered sharps-injury protection and needleless systems).
- Work practice controls may refer to practices that reduce the possibility of exposure to bloodborne pathogens by changing the way a task is performed (e.g., appropriate practices for handling and disposing of contaminated sharps, handling specimens, handling laundry, and cleaning contaminated surfaces and items).
- Employers should develop an exposure control plan(s) for their health care organization.
- An employer must prepare an exposure determination that contains a list of job classifications in which all employees have occupational exposure and a list of job classifications in which some employees have occupational exposure, along with a list of the tasks and procedures performed by those employees that result in their exposure.
- Employers must update their exposure control plan annually to reflect changes in tasks, procedures, and positions that affect occupational exposure, and also technological changes that eliminate or reduce occupational exposure.
- Employers must annually document in the exposure control plan that they have considered and begun using appropriate, commercially-available effective safer medical devices designed to eliminate or minimize occupational exposure.
- Employers must solicit and receive input from frontline workers in identifying, evaluating, and selecting effective engineering and work practice controls.

- Employers must document that they solicited input from frontline workers in identifying, evaluating, and selecting effective engineering and work practice controls.

Follow OSHA's guidelines for PPE

As previously alluded to, wearing appropriate PPE can significantly reduce the risk of becoming infected by a bloodborne pathogen. Therefore, health care administrators should ensure their health care organization follows OSHA's guidelines for PPE. Specific information regarding OSHA's guidelines/requirements for PPE may be found below.

- Employers are required to provide, clean, repair, and replace PPE as needed, and at no cost to employees.
- PPE must be readily accessible to workers and available in appropriate sizes.
- If it can be reasonably expected that an employee could have hand contact with blood, OPIM, or contaminated surfaces or items, the employer must ensure that the worker wears gloves (note: single-use gloves cannot be washed or decontaminated for reuse).
- Health care administrators should note the following: non-latex gloves, glove liners, powderless gloves or similar alternatives must be provided if workers are allergic to the gloves normally provided; gloves are required for all phlebotomies outside of volunteer blood donation centers.
- When splashes, sprays, splatters, or droplets of blood or OPIM pose a hazard to the eyes, nose or mouth, then masks in conjunction with eye protection (e.g., goggles or glasses with solid side shields) or chin-length face shields must be worn.
- Health care administrators should note the following: protection against exposure to the body is provided by protective clothing, such as gowns, aprons, lab coats, and similar garments; surgical caps or hoods, and shoe covers or boots are needed when gross contamination is expected (e.g., during orthopedic surgery or autopsies).
- Health care administrators should note the following: protective clothing must not be worn outside of the work area and must be decontaminated before being laundered.

- Health care administrators should note the following: an employee may choose, temporarily and briefly, under rare and extraordinary circumstances, to forego the use of PPE; it must be the employee's professional judgment that using PPE would prevent the delivery of health care or public safety services or would pose an increased hazard to the safety of the employee or coworker; when such a situation occurs, the employer is required to investigate and document the circumstances to determine if there is a way to avoid it from happening again in the future.
- Employers must ensure that workers remove PPE before leaving the work area.
- Health care administrators should note the following: if PPE is penetrated by blood or
  OPIM, the PPE must be removed immediately or as soon as feasible; once PPE is removed, it must be placed in an appropriately designated area or container for storage, washing, decontamination, or disposal.
- Employers must ensure that workers wash their hands immediately or as soon as feasible after the removal of gloves and other PPE.

Follow OSHA's guidelines for the handling of contaminated sharps

Due to the risk contaminated sharps present to health care professionals, OSHA developed specific guidelines/requirements to help reduce and prevent the transmission of bloodborne pathogens from contaminated sharps. Specific information regarding OSHA's guidelines/requirements for the handling of contaminated sharps may be found below.

- Employers are required to consider and use safer medical devices, wherever possible (e.g., devices that are needleless or have built-in protection to guard health care professionals against contact with the contaminated sharp) (note: the employer must document the consideration and implementation of the aforementioned devices in the Exposure Control Plan).
- Employers must ask non-managerial health care professionals who could be exposed to contaminated sharps injuries for their input in identifying, evaluating and selecting effective work practice and engineering controls, including safer medical devices (note: the employer must document the solicitation of worker input in the Exposure Control Plan).

- Employers must ensure that contaminated sharps are disposed of in sharps disposal containers immediately or as soon as feasible after use (note: sharps disposal containers must be readily accessible).
- Employers must ensure that containers for contaminated sharps are puncture-resistant; and the sides and the bottoms are leak proof.
- Employers must ensure that containers for contaminated sharps are appropriately labeled or color-coded red to warn everyone that the contents are hazardous.
- Employers must ensure that containers for disposable sharps are closable (i.e., have a lid, flap, door, or other means of closing the container).
- Employers must ensure that containers for disposable sharps are kept upright to keep the sharps and any liquids from spilling out of the container.
- Employers must ensure that containers for disposable sharps are replaced routinely and are not overfilled.
- Employers must ensure that reusable sharps that are contaminated are not stored or processed in a manner that requires health care professionals/ employees to reach by hand into the containers where these sharps were placed.
- If there is a chance of leakage from a disposal sharps container, the employer must ensure that it is placed in a secondary container that is closable, appropriately labeled or color-coded red, and constructed to contain all contents and prevent leakage during handling, storage, transport, or shipping.
- Health care administrators should note the following workers rights: workers have the right to working conditions that do not pose a risk of serious harm; workers have the right to receive information and training (in a language and vocabulary the worker understands) about workplace hazards, methods to prevent them, and the OSHA standards that apply to their workplace; workers have the right to review records of work-related injuries and illnesses; workers have the right to file a complaint asking OSHA to inspect their workplace if they believe there is a serious hazard or that their employer is not following OSHA's rules (note: OSHA will keep all identities confidential; exercise their rights under the law without retaliation, including reporting an injury or raising health and safety concerns with their employer or OSHA; if a worker was retaliated against for using his or her rights, he or she must file a complaint with OSHA as soon as possible, but no later than 30 days after the incident).

Follow OSHA's guidelines for securing medical catheters

Health care professionals who insert and suture in place medical catheters such as vascular devices and chest tubes face needlestick risks. Therefore, health care administrators should ensure that their health care organization follows OSHA's guidelines for securing medical catheters. Specific information regarding OSHA's guidelines/requirements for securing medical catheters may be found below.

- Employers of health care professionals/employees with occupational exposure to blood or other potentially infectious materials must annually consider and implement appropriate, available, and effective safer medical devices designed to eliminate or minimize that exposure (note: engineering controls that reduce the potential for needlesticks by eliminating the need to suture medical catheters in place are one option for health care employers to consider).
- As part of their annual review of methods to reduce needlesticks, employers must review options for securing medical catheters and consider appropriate engineering and work practice controls.
- During the annual review, employers must include the input of non-managerial employees responsible for direct patient care who are potentially exposed to injuries from contaminated sharps in the identification, evaluation, and selection of effective engineering and work practice controls.
- Health care administrators should note the following: health care professionals typically use tape or sutures to secure medical catheters; often health care professionals use sutures for central venous catheters, arterial catheters, and chest tubes; engineering controls, such as improved adhesive products and securement devices, may decrease or eliminate the need for sutures and thus directly reduce needlestick risk.
- Health care administrators should note the following: for catheters that do not require sutures for securement, such as peripheral intravenous catheters, health care professionals typically use tape; careful and thorough catheter securement is essential since ineffective securement may result in catheter dislodgment; a variety of tapes, adhesive products, and catheter securement devices are available; appropriate products and effective work practices are essential to provide increased catheter stability; such products and work practices may reduce catheter dislodgment and the necessity of reinsertion with its associated needlestick risk.

Follow OSHA's guidelines for cleaning, disinfecting, laundry, and hazardous medical waste

Cleaning, disinfecting, laundry, and the appropriate disposal of hazardous medical waste are all essential to preventing bloodborne pathogen exposure incidents. Specific information regarding OSHA's guidelines/requirements for cleaning, disinfecting, laundry, and hazardous medical waste may be found below.

- An employer whose employees are exposed to blood or other potentially infectious materials must develop a written schedule for cleaning each area where exposures occur (note: the methods of decontaminating different surfaces must be specified, determined by the type of surface to be cleaned, the soil present, and the tasks or procedures that occur in that area).
- Employees must decontaminate working surfaces and equipment with an appropriate disinfectant after completing procedures involving exposure to blood.
- Employees must clean when surfaces become obviously contaminated; after any spill of blood or other potentially infectious materials; and at the end of the work shift if contamination potentially occurred.
- Health care administrators should note the following: if surfaces or equipment are draped with protective coverings such as plastic wrap or aluminum foil, these coverings should be removed or replaced if they become obviously contaminated; reusable receptacles such as bins, pails, and cans that are likely to become contaminated must be inspected and decontaminated on a regular basis; if contamination is visible, employees must clean and decontaminate the item immediately, or as soon as possible.
- Should glassware that may be potentially contaminated break, employees should use mechanical means such as a brush and dustpan or tongs or forceps to pick up the broken glass; employees should never use their hands, even when wearing gloves to clean/pick up broken glass.
- Before any equipment is serviced or shipped for repairing or cleaning, it must be decontaminated to the extent possible; the equipment must be labeled, indicating which portions are still contaminated.

- Laundry workers must wear gloves and handle contaminated laundry as little as possible.
- Laundry must be transported within the health care facility or to outside laundries in labeled or red color-coded bags; if the health care facility uses universal precautions for handling all soiled laundry, then alternate labeling or color coding that can be recognized by the employees may be used; if laundry is wet and it might soak through laundry bags, then employees must use bags that prevent leakage to transport it.
- Containers used to store hazardous medical waste must be closable and suitable to contain the contents and prevent leakage of fluids.
- Hazardous medical waste must be disposed of in accordance with applicable state and federal laws.

Follow OSHA's guidelines for hepatitis B vaccination protection

Hepatitis B may refer to a potentially life-threatening liver infection caused by the hepatitis B virus (HBV). Individuals infected with HBV face a risk for liver ailments which can be fatal, including cirrhosis of the liver and primary liver cancer. Health care administrators should note the following: a small percentage of adults who get hepatitis B never fully recover and remain chronically infected; infected individuals can spread the virus to others through contact with their blood and other body fluids. Due to the potential complications of the HBV and the risk of transmission, health care administrators should ensure their health care organization follows OSHA's guidelines/ requirements for hepatitis B vaccination protection. Specific information regarding OSHA's guidelines/requirements for hepatitis B vaccination protection may be found below.

- An employer must develop an exposure control plan and implement use of universal precautions and control measures, such as engineering controls, work practice controls, and PPE to protect all health care professionals/employees with occupational exposure.
- Employers must make hepatitis B vaccination available to health care professionals/employees (note: hepatitis B vaccination is recognized as an effective defense against HBV infection).

- Employers must offer the hepatitis B vaccination series to all employees who have occupational exposure (e.g., health care professionals, emergency responders, morticians, first-aid personnel, correctional officers, and laundry workers in hospitals and commercial laundries that service health care or public safety institutions) (note: the vaccine and vaccination must be offered at no cost to the employee and at a reasonable time and place; the hepatitis B vaccine is a non-infectious, vaccine prepared from recombinant yeast cultures, rather than human blood or plasma pathogens)..
- Health care administrators should note the following: the hepatitis B vaccine must be administered according to the recommendations of the U.S. Public Health Service (USPHS) current at the time the procedure takes place; to ensure immunity, it is important for individuals to complete the entire course of vaccination contained in the USPHS recommendations.
- Employers must ensure that all occupationally exposed health care professionals/ employees are trained about the vaccine and vaccination, including efficacy, safety, method of administration, and the benefits of vaccination.
- Employers must inform health care professionals/employees that the hepatitis B vaccine and vaccination are offered at no cost to the employee.
- Health care administrators should note the following: hepatitis B vaccination must be offered after the employee is trained and within 10 days of initial assignment to a job where there is occupational exposure, unless the employee has previously received the vaccine series, antibody testing has revealed that the employee is immune, or the vaccine is contraindicated for medical reasons.
- The employer must obtain a written opinion from the licensed health care professional within 15 days of the completion of the evaluation for vaccination (note: the written opinion is limited to whether hepatitis B vaccination is indicated for the employee and if the employee has received the vaccination).
- Employers must ensure that employees who decline vaccination sign a declination form (note: the related form should state that if an employee initially declines to receive the vaccine, but at a later date decides to accept it, the employer is required to make it available, at no cost, provided the employee is still occupationally exposed).

How should health care administrators and health care organizations respond to a bloodborne pathogen exposure incident?

Health care administrators and health care organizations should respond to a bloodborne pathogen exposure incident by following internal, related, organizational policies and procedures, and OSHA's guidelines/requirements for bloodborne pathogen exposure incidents. Specific information regarding OSHA's guidelines/requirements for bloodborne pathogen exposure incidents may be found below.

- Bloodborne pathogen exposure incidents should be reported immediately to the employer (note: early reporting is crucial for beginning immediate intervention to address the possible infection of an employee).
- When an employee reports a bloodborne pathogen exposure incident, the report permits the employer to arrange for the immediate medical evaluation of the employee.
- The employer is required to perform a timely evaluation of the circumstances surrounding the exposure incident to find ways of preventing such a situation from occurring again.
- If the status of the source individual is not already known, the employer is required to test the source's blood as soon as feasible, provided the source individual consents; if the individual does not consent, the employer must establish that legally required consent cannot be obtained; if state or local law allows testing without the source individual's consent, the employer must test the individual's blood, if it is available; the results of related tests must be made available to the exposed employee and the employee must be informed of the laws and regulations about disclosing the source's identity and infection status.
- When an employee experiences a bloodborne pathogen exposure incident, the employer must make immediate confidential medical evaluation and follow-up available to the employee; the evaluation and follow-up must be: made available at no cost to the employee and at a reasonable time and place; performed by or under the supervision of a licensed physician or other licensed health care professional; and provided according to the recommendations of the U.S. Public Health Service (USPHS) current at the time the procedures take place; laboratory tests must be conducted by an accredited laboratory and also must be at no cost to the employee.

- An employee who participates in post-exposure evaluation and follow-up may consent to have his or her blood drawn for determination of a baseline infection status, but has the option to withhold consent for HIV testing at that time. In this instance, the employer must ensure that the worker's blood sample is preserved for at least 90 days in case the worker changes his or her mind about HIV testing.
- Post-exposure prophylaxis for HIV, HBV, and HCV, when medically indicated, must be offered to the exposed employees according to the current recommendations of the U.S. Public Health Service; the post-exposure follow-up must include counseling the employee about the possible implications of the exposure and his or her infection status, including the results and interpretation of all tests and how to protect personal contacts; the follow-up must also include evaluation of reported illnesses that may be related to the exposure.
- The employer must obtain and provide the employee with a copy of the evaluating health care professional’s written opinion within 15 days of completion of the evaluation.
- The written opinion should only include the following: whether hepatitis B vaccination was recommended for the exposed employee; whether or not the employee received the vaccination, and that the health care provider informed the employee of the results of the evaluation and any medical conditions resulting from exposure to blood or OPIM which require further evaluation or treatment (note: any other findings should not to be included in the written report).

Section 1 Summary

Bloodborne pathogens are infectious microorganisms in human blood that can cause disease in humans (e.g., HBV; HCV; HIV). Health care professionals/employees working in a health care facility may be exposed to bloodborne pathogens in a variety of different ways including the following: coming into contact with patients' blood; coming into contact with OPIM; coming into contact with a patient's mucous membrane or non-intact skin; coming into contact with hazardous medical waste; through a sharps injury; through a needlestick injury; and/or when securing medical catheters. Health care administrators and health care organizations can work to prevent bloodborne pathogen exposure incidents by the following methods and strategies: ensure universal precautions/standard precautions are followed; provide bloodborne pathogen education

and training to employees and use labels and signs to communicate hazards; establish and follow an exposure control plan, identify and use engineering controls, and identify and ensure the use of work practice controls; follow OSHA's guidelines for PPE; follow OSHA's guidelines for the handling of contaminated sharps; follow OSHA's guidelines for securing medical catheters; follow OSHA's guidelines for cleaning, disinfecting, laundry, and hazardous medical waste; follow OSHA's guidelines for hepatitis B vaccination protection. Health care administrators and health care organizations should respond to a bloodborne pathogen exposure incident by following internal, related, organizational policies and procedures, and OSHA's guidelines/requirements for bloodborne pathogen exposure incidents. Health care administrators should note that additional information regarding OSHA's guidelines/requirements may be found at https://www.osha.gov/bloodborne-pathogens.

Section 1 Key Concepts

- Any health care professional/employee who has reasonably anticipated contact with blood or OPIM (e.g., semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid) during performance of his or her job duties is considered to have occupational exposure and to be at risk of being infected.
- Health care professionals/employees working in a health care facility may be exposed to bloodborne pathogens in a variety of different ways including the following: coming into contact with patients' blood; coming into contact with OPIM; coming into contact with a patient's mucous membrane or non-intact skin; coming into contact with hazardous medical waste; through a sharps injury; through a needlestick injury; and/or when securing medical catheters.
- Viruses can potentially live outside of the human body for several minutes, hours, and/or days, depending on the virus; therefore, it is possible for a health care professional/employee to become infected by a bloodborne pathogen, such as a virus (e.g., through a sharps injury/needlestick injury).
- Health care administrators and health care organizations can work to prevent bloodborne pathogen exposure incidents by the following methods and strategies: ensure universal/standard precautions are followed; provide bloodborne pathogen education and training to employees and use labels and signs to communicate hazards; establish and follow an exposure control plan,

identify and use engineering controls, and identify and ensure the use of work practice controls; follow OSHA's guidelines for PPE; follow OSHA's guidelines for the handling of contaminated sharps; follow OSHA's guidelines for securing medical catheters; follow OSHA's guidelines for cleaning, disinfecting, laundry, and hazardous medical waste; follow OSHA's guidelines for hepatitis B vaccination protection.

- Health care administrators and health care organizations should respond to a bloodborne pathogen exposure incident by following internal, related, organizational policies and procedures, and OSHA's guidelines/requirements for bloodborne pathogen exposure incidents.

Section 1 Key Terms

Occupational Safety and Health Administration (OSHA) - the regulatory agency of the United States Department of Labor responsible for ensuring safe and healthful working conditions for workers by setting and enforcing standards and by providing training, outreach, education, and assistance

Bloodborne pathogen exposure incident - any event involving one of more individuals and the potential or actual exposure to blood or OPIM; a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or OPIM that results from the performance of an employee's duties

Bloodborne pathogens - infectious microorganisms in human blood that can cause disease in humans

Hazardous medical waste - waste that may be potentially contaminated by blood, body fluids, or other potentially infectious materials

Sharps injury - a stab wound or related wound that is caused by a scalpel, needle, and/or by another sharp object

Needlestick injury - a wound that is caused by a needle that accidently punctures the skin

Medical catheters - tubes used in health care to deliver intravenous fluids and medications or to drain body fluids from a patient

Universal precautions - the practice of treating all human blood and OPIM as if known to be infectious for bloodborne pathogens

Standard precautions - infection control practices that may be used to prevent the transmission of diseases; the minimum infection prevention practices that apply to all patient care

Hand hygiene - the process of cleaning hands in order to prevent contamination and/or infections

Personal protective equipment (PPE) - equipment designed to protect, shield, and minimize exposure to hazards that may cause serious injury, illness, and/or disease

Medical procedure mask *(otherwise referred to as a surgical mask or a disposable face mask)* - a single-use mask that is not made of cloth and is not designed to be washed or laundered

Coronavirus disease 2019 (COVID-19) - a respiratory illness that can spread from person to person that is caused by a virus known as the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)

Respirator - a personal protective device that is worn on the face or head and covers at least the nose and mouth

N95 respirator - a particulate-filtering, face piece respirator that filters at least 95% of airborne particles

Surgical gown - a type of gown intended to be worn by various health care professionals during surgical procedures

Touch contamination - touching one's self and/or other surfaces such as tables, light switches, and doors while wearing gloves

Sharp safety - the practice(s) of adequately handling devices and/or objects with sharp points or edges that can puncture or cut the skin to help prevent injury from such devices and/or objects

Safe injection practices - practices that are intended to prevent the transmission of infectious diseases between one patient and another, and/or between a patient and a health care professional during the preparation and administration of parenteral medications

Cleaning and disinfecting procedures - any actions taken to remove infectious agents/ materials from surfaces or objects

Exposure control plan - a written plan to eliminate or minimize occupational exposures

Engineering controls - devices that isolate or remove the bloodborne pathogen hazards from the workplace

Work practice controls - practices that reduce the possibility of exposure to bloodborne pathogens by changing the way a task is performed

Hepatitis B - a potentially life-threatening liver infection caused by the hepatitis B virus (HBV)

Section 1 Personal Reflection Question

How can health care administrators use OSHA's guidelines for bloodborne pathogens, waste, sharps, and catheters to improve employee safety within their health care organization?

Section 2: OSHA's Bloodborne Pathogens Standard (29 CFR 1910.1030)

The OSHA guidelines/requirements highlighted in Section 1 were derived from OSHA's Bloodborne Pathogens Standard (29 CFR 1910.1030) (note: OSHA's Bloodborne Pathogens Standard [29 CFR 1910.1030] may refer to a regulation that prescribes safeguards to protect workers against health hazards related to bloodborne pathogens). Therefore, health care administrators should be familiar with 29 CFR 1910.1030 to improve employee safety and to help reduce/prevent bloodborne pathogen exposure incidents. This section of the course highlights requirements outlined in 29 CFR 1910.1030. The information found within this section of the course was derived from materials provided by OSHA unless, otherwise, specified (OSHA, 2021).

29 CFR 1910.1030

- 29 CFR 1910.1030 applies to all occupational exposure to blood or OPIM.

- 29 CFR 1910.1030 indicates that the term contaminated refers to the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.
- 29 CFR 1910.1030 indicates that the term decontamination refers to the use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.
- 29 CFR 1910.1030 indicates that the term sterilize refers to the use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.
- 29 CFR 1910.1030 indicates that the term handwashing facility refers to a facility providing an adequate supply of running potable water, soap, and single-use towels or air-drying machines.
- 29 CFR 1910.1030 indicates that the term needleless system refers to a device that does not use needles for: the collection of body fluids or withdrawal of body fluids after initial venous or arterial access is established; the administration of medication or fluids; or any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps.
- 29 CFR 1910.1030 indicates that the term other potentially infectious materials (OPIM) refers to 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; any unfixed tissue or organ (other than intact skin) from a human (living or dead); and HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.
- 29 CFR 1910.1030 indicates that the term regulated waste refers to liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other

potentially infectious materials and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.

- 29 CFR 1910.1030 indicates that the term source individual refers to any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee (e.g., hospital and clinic patients; clients in institutions for the developmentally disabled; trauma victims; clients of drug and alcohol treatment facilities; residents of hospices and nursing homes; human remains; and individuals who donate or sell blood or blood components).
- Each employer having an employee(s) with occupational exposure should establish a written exposure control plan designed to eliminate or minimize employee exposure.
- An exposure control plan should contain, at least, the following elements: exposure determination; the schedule and method of implementation for methods of compliance, HIV and HBV research laboratories and production facilities (when applicable), hepatitis B vaccination and post-exposure evaluation and follow-up, communication of hazards to employees, and recordkeeping; the procedure for the evaluation of circumstances surrounding exposure incidents.
- Each employer shall ensure that a copy of the exposure control plan is accessible to employees.
- The exposure control plan should be reviewed and updated at least annually and whenever necessary to reflect new or modified tasks and procedures which affect occupational exposure and to reflect new or revised employee positions with occupational exposure.
- An exposure control plan review and update should reflect changes in technology that eliminate or reduce exposure to bloodborne pathogens; and document annually consideration and implementation of appropriate commercially available and effective safer medical devices designed to eliminate or minimize occupational exposure.
- An employer, who is required to establish an exposure control plan should solicit input from non-managerial employees responsible for direct patient care who are potentially exposed to injuries from contaminated sharps in the identification,

evaluation, and selection of effective engineering and work practice controls and should document the solicitation in the exposure control plan.

- Each employer who has an employee(s) with occupational exposure should prepare an exposure determination.
- An exposure determination should include the following: a list of all job classifications in which all employees in those job classifications have occupational exposure; a list of job classifications in which some employees have occupational exposure; a list of all tasks and procedures or groups of closely related task and procedures in which occupational exposure occurs and that are performed by employees in job classifications (note: the exposure determination should be made without regard to the use of PPE).
- Universal precautions should be observed to prevent contact with blood or other potentially infectious materials. Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious materials.
- Engineering and work practice controls should be used to eliminate or minimize employee exposure. Where occupational exposure remains after institution of such controls, PPE should also be used.
- Engineering controls should be examined and maintained or replaced on a regular schedule to ensure their effectiveness.
- Employers should provide handwashing facilities which are readily accessible to employees.
- When provision of handwashing facilities is not feasible, the employer shall provide either an appropriate antiseptic hand cleanser in conjunction with clean cloth/paper towels or antiseptic towelettes (note: when antiseptic hand cleansers or towelettes are used, hands should be washed with soap and running water as soon as feasible).
- Employers should ensure that employees wash their hands immediately or as soon as feasible after removal of gloves or other PPE.
- Employers should ensure that employees wash hands and any other skin with soap and water, or flush mucous membranes with water immediately or as soon

as feasible following contact of such body areas with blood or other potentially infectious materials.

- Contaminated needles and other contaminated sharps should not be bent, recapped, or removed (note: contaminated needles and other contaminated sharps shall not be bent, recapped or removed unless the employer can demonstrate that no alternative is feasible or that such action is required by a specific medical procedure).
- Shearing or breaking of contaminated needles is prohibited.
- Bending, recapping, or needle removal must be accomplished through the use of a mechanical device or a one-handed technique.
- Immediately or as soon as possible after use, contaminated reusable sharps should be placed in appropriate containers until properly reprocessed.
- Appropriate sharps containers should be puncture resistant; labeled or color-coded in accordance with this standard; leak proof on the sides and bottom.
- Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas where there is a reasonable likelihood of occupational exposure.
- Food and drink should not be kept in refrigerators, freezers, shelves, cabinets or on countertops or benchtops where blood or other potentially infectious materials are present.
- All procedures involving blood or other potentially infectious materials should be performed in such a manner as to minimize splashing, spraying, spattering, and generation of droplets of these substances.
- Mouth pipetting/suctioning of blood or other potentially infectious materials is prohibited.
- Specimens of blood or other potentially infectious materials should be placed in a container which prevents leakage during collection, handling, processing, storage, transport, or shipping.
- Containers for storage, transport, or shipping should be labeled or color-coded and closed prior to being stored, transported, or shipped (note: when a health care facility utilizes universal precautions in the handling of all specimens, the

labeling/color-coding of specimens is not necessary provided containers are recognizable as containing specimens; the aforementioned exemption only applies while such specimens/containers remain within the health care facility; labeling or color-coding is required when such specimens/containers leave the facility).

- If outside contamination of the primary container occurs, the primary container should be placed within a second container which prevents leakage during handling, processing, storage, transport, or shipping and is labeled or color-coded according to requirements.
- If the specimen could puncture the primary container, the primary container should be placed within a secondary container which is puncture-resistant and meets the aforementioned requirements.
- Equipment which may become contaminated with blood or other potentially infectious materials should be examined prior to servicing or shipping and should be decontaminated as necessary, unless the employer can demonstrate that decontamination of such equipment or portions of such equipment is not feasible.
- A readily observable label should be attached to equipment stating which portions are/remain contaminated.
- The employer should ensure that information is conveyed to all affected employees, the servicing representative, and/or the manufacturer, as appropriate, prior to handling, servicing, or shipping so that appropriate precautions will be taken.
- When there is occupational exposure, the employer should provide, at no cost to the employee, appropriate PPE such as, but not limited to, gloves, gowns, laboratory coats, face shields or masks, eye protection, and mouthpieces, resuscitation bags, pocket masks, or other ventilation devices (note: PPE will be considered “appropriate” only if it does not permit blood or other potentially infectious materials to pass through to or reach the employee's work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time which the protective equipment will be used).

- The employer should ensure that the employee uses appropriate PPE unless the employer shows that the employee temporarily and briefly declined to use PPE when, under rare and extraordinary circumstances, it was the employee's professional judgment that in the specific instance its use would have prevented the delivery of health care or public safety services or would have posed an increased hazard to the safety of the worker or co-worker (note: when the employee makes such a judgment, the circumstances should be investigated and documented in order to determine whether changes can be instituted to prevent such occurrences in the future).
- The employer should ensure that appropriate PPE in the appropriate sizes is readily accessible at the worksite or is issued to employees. Hypoallergenic gloves, glove liners, powderless gloves, or other similar alternatives should be readily accessible to those employees who are allergic to the gloves normally provided.
- The employer should clean, launder, and dispose of PPE at no cost to the employee.
- The employer should repair or replace PPE as needed to maintain its effectiveness, at no cost to the employee.
- If a garment(s)/PPE is penetrated by blood or other potentially infectious materials, the garment(s)/PPE should be removed immediately or as soon as feasible.
- All PPE should be removed prior to leaving the work area.
- When PPE is removed it should be placed in an appropriately designated area or container for storage, washing, decontamination, or disposal.
- Gloves should be worn when it can be reasonably anticipated that the employee may have hand contact with blood, other potentially infectious materials, mucous membranes, and non-intact skin; when performing vascular access procedures; and when handling or touching contaminated items or surfaces.
- Disposable (single use) gloves such as surgical or examination gloves, should be replaced as soon as practical when contaminated or as soon as feasible if they are torn, punctured, or when their ability to function as a barrier is compromised.

- Disposable (single use) gloves should not be washed or decontaminated for re-use.
- Utility gloves may be decontaminated for re-use if the integrity of the glove is not compromised; utility gloves must be discarded if they are cracked, peeling, torn, punctured, or exhibit other signs of deterioration or when their ability to function as a barrier is compromised.
- Masks in combination with eye protection devices, such as goggles or glasses with solid side shields, or chin-length face shields, should be worn whenever splashes, spray, spatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, or mouth contamination can be reasonably anticipated.
- Appropriate protective clothing such as, but not limited to, gowns, aprons, lab coats, clinic jackets, or similar outer garments should be worn in occupational exposure situations (note: the type and characteristics of PPE should depend upon the task and degree of exposure anticipated).
- Surgical caps or hoods and/or shoe covers or boots should be worn in instances when gross contamination can reasonably be anticipated.
- Employers should ensure that the worksite is maintained in a clean and sanitary condition.
- Employers should determine and implement an appropriate written schedule for cleaning and method of decontamination based upon the location within the facility, type of surface to be cleaned, type of soil present, and tasks or procedures being performed in the area.
- All equipment and environmental and working surfaces should be cleaned and decontaminated after contact with blood or other potentially infectious materials.
- Contaminated work surfaces should be decontaminated with an appropriate disinfectant after completion of procedures; immediately or as soon as feasible when surfaces are overtly contaminated or after any spill of blood or other potentially infectious materials; and at the end of the work shift if the surface may have become contaminated since the last cleaning.
- Protective coverings, such as plastic wrap, aluminum foil, or imperviously-backed absorbent paper used to cover equipment and environmental surfaces, should be

removed and replaced as soon as feasible when they become overtly contaminated or at the end of the workshift if they may have become contaminated during the shift.

- All bins, pails, cans, and similar receptacles intended for reuse which have a reasonable likelihood for becoming contaminated with blood or other potentially infectious materials should be inspected and decontaminated on a regularly scheduled basis and cleaned and decontaminated immediately or as soon as feasible upon visible contamination.
- Broken glassware which may be contaminated should not be picked up directly with the hands; it should be cleaned up using mechanical means, such as a brush and dust pan, tongs, or forceps.
- Reusable sharps that are contaminated with blood or other potentially infectious materials should not be stored or processed in a manner that requires employees to reach by hand into the containers where these sharps have been placed.
- Contaminated sharps should be discarded immediately or as soon as feasible in containers that are: closable; puncture resistant; leak proof on sides and bottom; and labeled or color-coded.
- During use, containers for contaminated sharps should be: easily accessible to personnel and located as close as is feasible to the immediate area where sharps are used or can be reasonably anticipated to be found (e.g., laundries); maintained upright throughout use; and replaced routinely and not be allowed to overfill.
- When moving containers of contaminated sharps from the area of use, the containers should be: closed immediately prior to removal or replacement to prevent spillage or protrusion of contents during handling, storage, transport, or shipping; placed in a secondary container if leakage is possible (note: the second container should be: closable; constructed to contain all contents and prevent leakage during handling, storage, transport, or shipping; and labeled or color-coded).
- Reusable containers should not be opened, emptied, or cleaned manually or in any other manner which would expose employees to the risk of percutaneous injury.

- Regulated waste should be placed in containers which are: closable; constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping; labeled or color-coded; and closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.
- Disposal of all regulated waste should be in accordance with applicable regulations of the United States, States and Territories, and political subdivisions of States and Territories.
- Contaminated laundry should be handled as little as possible with a minimum of agitation.
- Contaminated laundry should be bagged or containerized at the location where it was used and should not be sorted or rinsed in the location of use.
- Contaminated laundry should be placed and transported in bags or containers labeled or color-coded (note: when a health care facility utilizes universal precautions in the handling of all soiled laundry, alternative labeling or color-coding is sufficient if it permits all employees to recognize the containers as requiring compliance with universal precautions).
- Whenever contaminated laundry is wet and presents a reasonable likelihood of soak-through or leakage from the bag or container, the laundry shall be placed and transported in bags or containers which prevent soak-through and/or leakage of fluids to the exterior.
- The employer should ensure that employees who have contact with contaminated laundry wear protective gloves and other appropriate personal protective equipment.
- When a health care facility ships contaminated laundry off-site to a second facility which does not utilize universal precautions in the handling of all laundry, the facility generating the contaminated laundry must place such laundry in bags or containers which are labeled or color-coded.
- Laboratory doors should be kept closed when work involving HIV or HBV is in progress, when applicable.
- Access to the work area should be limited to authorized persons; written policies and procedures should be established whereby only persons who have been

advised of the potential biohazard, who meet any specific entry requirements, and who comply with all entry and exit procedures should be allowed to enter the work areas.

- All spills should be immediately contained and cleaned up by appropriate professional staff or others properly trained and equipped to work with potentially concentrated infectious materials.
- Certified biological safety cabinets (Class I, II, or III) or other appropriate combinations of personal protection or physical containment devices, such as special protective clothing, respirators, centrifuge safety cups, sealed centrifuge rotors, and containment caging for animals, should be used for all activities with other potentially infectious materials that pose a threat of exposure to droplets, splashes, spills, or aerosols.
- Biological safety cabinets should be certified when installed, whenever they are moved and at least annually.
- The employer should make available the hepatitis B vaccine and vaccination series to all employees who have occupational exposure, and post-exposure evaluation and follow-up to all employees who had an exposure incident.
- The employer should ensure that all medical evaluations and procedures, including the hepatitis B vaccine and vaccination series and post-exposure evaluation and follow-up, including prophylaxis, are: made available at no cost to the employee; made available to the employee at a reasonable time and place; performed by or under the supervision of a licensed physician or by or under the supervision of another licensed health care professional; and provided according to recommendations of the U.S. Public Health Service current at the time these evaluations and procedures take place.
- The employer should ensure that all laboratory tests related to hepatitis B vaccination are conducted by an accredited laboratory at no cost to the employee.
- Hepatitis B vaccination should be made available after an employee received the required training and within 10 working days of initial assignment to all employees who have occupational exposure unless the employee has previously received the complete hepatitis B vaccination series, antibody testing has

revealed that the employee is immune, or the vaccine is contraindicated for medical reasons.

- The employer should not make participation in a prescreening program a prerequisite for receiving hepatitis B vaccination.
- If the employee initially declines hepatitis B vaccination but at a later date, while still covered, decides to accept the vaccination, the employer should make available hepatitis B vaccination at that time.
- The employer should assure that employees who decline to accept hepatitis B vaccination offered by the employer sign the related statement.
- If a routine booster dose(s) of hepatitis B vaccine is recommended by the U.S. Public Health Service at a future date, such booster dose(s) should be made available.
- The employer should ensure that the health care professional responsible for the employee's hepatitis B vaccination is provided a copy of the related regulation.
- The employer should obtain and provide the employee with a copy of the evaluating health care professional's written opinion within 15 days of the completion of the evaluation.
- The health care professional's written opinion for hepatitis B vaccination should be limited to whether hepatitis B vaccination is indicated for an employee, and if the employee has received such vaccination.
- Following a report of a bloodborne pathogen exposure incident, the employer should make immediately available to the exposed employee a confidential medical evaluation and follow-up, including at least the following elements: documentation of the route(s) of exposure, and the circumstances under which the exposure incident occurred; identification and documentation of the source individual, unless the employer can establish that identification is infeasible or prohibited by state or local law; the source individual's blood should be tested as soon as feasible and after consent is obtained in order to determine HBV and HIV infectivity (note: if consent is not obtained, the employer should establish that legally required consent cannot be obtained).
- When the source individual's consent is not required by law, the source individual's blood, if available, should be tested and the results documented.

- When the source individual is already known to be infected with HBV or HIV, testing for the source individual's known HBV or HIV status need not be repeated.
- Results of the source individual's testing should be made available to the exposed employee, and the employee should be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.
- The exposed employee's blood should be collected as soon as feasible and tested after consent is obtained.
- If the employee consents to baseline blood collection, but does not give consent at that time for HIV serologic testing, the sample should be preserved for at least 90 days; if, within 90 days of the exposure incident, the employee elects to have the baseline sample tested, such testing should be done as soon as feasible.
- The following should be made available to an employee after a bloodborne pathogen exposure incident: post-exposure prophylaxis, when medically indicated, as recommended by the U.S. Public Health Service; counseling; and evaluation of reported illnesses.
- The employer should ensure that the health care professional evaluating an employee after an exposure incident is provided the following information: a copy of related regulations; a description of the exposed employee's duties as they relate to the exposure incident; documentation of the route(s) of exposure and circumstances under which exposure occurred; results of the source individual's blood testing, if available; and all medical records relevant to the appropriate treatment of the employee including vaccination status which are the employer's responsibility to maintain.
- The employer should obtain and provide the employee with a copy of the evaluating health care professional's written opinion regarding the bloodborne pathogen exposure incident within 15 days of the completion of the evaluation.
- The health care professional's written opinion for post-exposure evaluation and follow-up should be limited to the following information: the employee has been informed of the results of the evaluation; the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment (note: all other

findings or diagnoses should remain confidential and should not be included in the written report).

- Warning labels should be affixed to containers of regulated waste, refrigerators, and freezers containing blood or other potentially infectious material; and other containers used to store, transport or ship blood or other potentially infectious materials.
- Required labels should include a biohazard legend.
- Required labels should be fluorescent orange or orange-red or predominantly so, with lettering and symbols in a contrasting color.
- Required labels should be affixed as close as feasible to the container by string, wire, adhesive, or other method that prevents their loss or unintentional removal.
- Red bags or red containers may be substituted for labels.
- Containers of blood, blood components, or blood products that are labeled as to their contents and have been released for transfusion or other clinical use are exempted from the labeling requirements.
- Individual containers of blood or other potentially infectious materials that are placed in a labeled container during storage, transport, shipment or disposal are exempted from the labeling requirement.
- Labels required for contaminated equipment should state which portions of the equipment remain contaminated.
- Regulated waste that was decontaminated need not be labeled or color-coded.
- The employer should post signs at the entrance to the following work areas, when applicable: HIV and HBV research laboratory, production facilities, and other related areas: (note: the sign should include a biohazard legend).
- The aforementioned signs should be fluorescent orange-red or predominantly so, with lettering and symbols in a contrasting color.
- The employer should train each employee with occupational exposure in accordance with related requirements.
- Occupational exposure training must be provided at no cost to the employee and during working hours.

- The employer should institute an occupational exposure training program and ensure employee participation in the program.
- Occupational exposure training should be provided as follows: at the time of initial assignment to tasks where occupational exposure may take place; at least annually thereafter (note: annual training for all employees should be provided within one year of their previous training).
- Employers should provide additional training when changes such as modification of tasks or procedures or institution of new tasks or procedures affect the employee's occupational exposure (note: the additional training may be limited to addressing the new exposures created).
- Employers should use material appropriate in content and vocabulary to educational level, literacy, and language of employees during required training .
- The training program should contain, at a minimum, the following elements: an accessible copy of related regulatory texts; a general explanation of the epidemiology and symptoms of bloodborne diseases; an explanation of the modes of transmission of bloodborne pathogens; an explanation of the employer's exposure control plan and the means by which the employee can obtain a copy of the written plan; an explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials; an explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and personal protective equipment; information on the types, proper use, location, removal, handling, decontamination, and disposal of personal protective equipment; an explanation of the basis for selection of personal protective equipment; information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge; information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials; an explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available; information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident; an explanation of the signs and labels and/or color coding; and an opportunity for interactive questions and answers with the person conducting the training session

(note: the individual(s) conducting the training should be knowledgeable in the subject matter covered by the elements contained in the training program as it relates to the workplace that the training will address).

- The employer should provide additional initial training for employees in HIV and HBV laboratories and production facilities, when applicable.
- The employer should assure that employees demonstrate proficiency in standard microbiological practices and techniques and in the practices and operations specific to the facility before being allowed to work with HIV or HBV, when applicable.
- The employer should assure that employees have prior experience in the handling of human pathogens or tissue cultures before working with HIV or HBV, when applicable.
- The employer should provide a training program to employees who have no prior experience in handling human pathogens; initial work activities should not include the handling of infectious agents; a progression of work activities should be assigned as techniques are learned and proficiency is developed.
- The employer should assure that employees participate in work activities involving infectious agents only after proficiency has been demonstrated.
- The employer should establish and maintain an accurate record for each employee with occupational exposure.
- The aforementioned employee record should include: the name of the employee; a copy of the employee's hepatitis B vaccination status including the dates of all the hepatitis B vaccinations and any medical records relative to the employee's ability to receive vaccination; a copy of all results of examinations, medical testing, and follow-up procedures; the employer's copy of the health care professional's written opinion, when applicable; and a copy of the information provided to the health care professional.
- The employer should ensure that employee required medical records are: kept confidential; are not disclosed or reported without the employee's express written consent to any person within or outside the workplace except as required by related regulations and laws.

- The employer should maintain required medical records for at least the duration of an employee's employment, plus 30 years in accordance with 29 CFR 1910.1020.
- Employers should ensure training records include the following information: the dates of the training sessions; the contents or a summary of the training sessions; the names and qualifications of persons conducting the training; and the names and job titles of all persons attending the training sessions.
- Employers should maintain training records for three years from the date on which the training occurred.
- The employer should ensure that all records required to be maintained by 29 CFR 1910.1020 should be made available upon request to the OSHA Assistant Secretary and Director for examination and copying.
- Employee training records required by 29 CFR 1910.1020 should be provided upon request for examination and copying to employees, to employee representatives, to the OSHA Director, and to the OSHA Assistant Secretary.
- Employee medical records required by 29 CFR 1910.1020 should be provided upon request for examination and copying to the subject employee, to anyone having written consent of the subject employee, to the OSHA Director, and to the OSHA Assistant Secretary in accordance with 29 CFR 1910.1020.
- The employer should establish and maintain a sharps injury log for the recording of percutaneous injuries from contaminated sharps.
- The information in the sharps injury log should be recorded and maintained in such a manner as to protect the confidentiality of the injured employee.
- The sharps injury log should contain, at a minimum: the type and brand of device involved in the incident; the department or work area where the exposure incident occurred; and an explanation of how the incident occurred.
- The requirement to establish and maintain a sharps injury log applies to any employer who is required to maintain a log of occupational injuries and illnesses under 29 CFR part 1904.

Section 2 Summary

Health care administrators should be familiar with 29 CFR 1910.1030 to improve employee safety and to help reduce/prevent bloodborne pathogen exposure incidents. Health care administrators should ensure that the regulations outlined by 29 CFR 1910.1030 are meet and followed within their health care facility. Finally, health care administrators should regularly review internal policies and procedures to ensure they meet 29 CFR 1910.1030 requirements and regulations.

Section 2 Key Concepts

- Health care administrators should be familiar with 29 CFR 1910.1030 to improve employee safety and to help reduce/prevent bloodborne pathogen exposure incidents.
- Health care administrators should ensure that the regulations outlined by 29 CFR 1910.1030 are met and followed within their health care facility.

Section 2 Key Terms

OSHA's Bloodborne Pathogens Standard (29 CFR 1910.1030) - a regulation that prescribes safeguards to protect workers against health hazards related to bloodborne pathogens

Contaminated - the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface

Decontamination - the use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal

Sterilize - the use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores

Handwashing facility - a facility providing an adequate supply of running potable water, soap, and single-use towels or air-drying machines

Needleless system - a device that does not use needles for: the collection of body fluids or withdrawal of body fluids after initial venous or arterial access is established; the administration of medication or fluids; or any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps

Other potentially infectious materials (OPIM) - 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; any unfixed tissue or organ (other than intact skin) from a human (living or dead); and HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV

Regulated waste - liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials

Source individual - any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to an employee

Section 2 Personal Reflection Question

How can health care administrators ensure the requirements outlined in 29 CFR 1910.1030 are met and followed within their health care organization?

Section 3: Occupational Safety and Health Standards

U.S. government organizations, such as OSHA, suggest that health care administrators should consider COVID-19 and COVID-19 requirements when assessing and implementing employee safety measures, practices, and procedures, including those related to bloodborne pathogen exposure incidents. With that in mind, this section of the course highlights requirements outlined in OSHA's COVID-19-related Occupational

Safety and Health Standards. The information found within this section of the course was derived from materials provided by OSHA unless, otherwise, specified (OSHA, 2021).

OSHA's COVID-19-Related Occupational Safety and Health Standards

- OSHA's COVID-19-related Occupational Safety and Health Standards indicate that the term aerosol-generating procedure refers to a medical procedure that generates aerosols that can be infectious and are of respirable size.
- OSHA's COVID-19-related Occupational Safety and Health Standards indicate that the term airborne infection isolation room (AIIR) refers to a dedicated negative pressure patient-care room, with special air handling capability, which is used to isolate persons with a suspected or confirmed airborne-transmissible infectious disease (e.g., a booth, tent, or other enclosure designed to operate under negative pressure).
- OSHA's COVID-19-related Occupational Safety and Health Standards indicate that the term close contact refers to being within six feet of any other person for a cumulative total of 15 minutes or more over a 24-hour period during that person’s potential period of transmission (note: the potential COVID-19 transmission period runs from two days before an individual feels sick [or, for asymptomatic individuals, two days prior to test specimen collection] until the time an individual is isolated).
- OSHA's COVID-19-related Occupational Safety and Health Standards indicate that the term direct patient care refers to hands-on, face-to-face contact with patients for the purpose of diagnosis, treatment, and monitoring.
- OSHA's COVID-19-related Occupational Safety and Health Standards indicate that the term fully vaccinated means two weeks or more following the final dose of a COVID-19 vaccine.
- The employer must develop and implement a COVID-19 plan for each workplace. If the employer has multiple workplaces that are substantially similar, its COVID-19 plan may be developed by workplace type rather than by individual workplace so long as all required site specific information is included in the plan.
- If the employer has more than 10 employees, a COVID-19 plan must be written.

- The employer must designate one or more workplace COVID-19 safety coordinators to implement and monitor the COVID-19 plan. The COVID-19 safety coordinator(s) must be knowledgeable in infection control principles and practices as they apply to the workplace and employee job operations. The identity of the safety coordinator(s) must be documented in any written COVID-19 plan. The safety coordinator(s) must have the authority to ensure compliance with all aspects of the COVID-19 plan.
- The employer must conduct a workplace-specific hazard assessment to identify potential workplace hazards related to COVID-19.
- The employer must seek the input and involvement of non-managerial employees and their representatives, if any, in the hazard assessment and the development and implementation of the COVID-19 plan.
- The employer must monitor each workplace to ensure the ongoing effectiveness of the COVID-19 plan and update it as needed.
- The COVID-19 plan must address the hazards identified by an assessment, and include policies and procedures to minimize the risk of transmission of COVID-19 for each employee.
- When employees of different employers share the same physical location, each employer must effectively communicate its COVID-19 plan to all other employers, coordinate to ensure that each of its employees is protected, and adjust its COVID-19 plan to address any particular COVID-19 hazards presented by the other employees (note: the aforementioned requirement does not apply to delivery people, messengers, and other employees who only enter a workplace briefly to drop off or pick up items).
- Employers should limit and monitor points of entry to the setting.
- Employers should screen and triage all clients, patients, residents, delivery people, and other visitors and other non-employees entering the setting.
- Employers must develop and implement policies and procedures to adhere to Standard and Transmission-Based Precautions in accordance with the CDC's ''Guidelines for Isolation Precautions.''
- Employers must provide, and ensure that employees wear facemasks.

- The employer must ensure a facemask is worn by each employee over the nose and mouth when indoors and when occupying a vehicle with other people for work purposes; the employer must provide a sufficient number of facemasks to each employee and must ensure that each employee changes them at least once per day, whenever they are soiled or damaged, and more frequently as necessary (e.g., patient care reasons) (note: facemask exceptions include: when an employee is alone in a room; while an employee is eating and drinking at the workplace, provided each employee is at least six feet away from any other person, or separated from other people by a physical barrier.)
- When it is important to see a person's mouth (e.g., communicating with an individual who is deaf or hard of hearing) and the conditions do not permit a facemask that is constructed of clear plastic (or includes a clear plastic window), the employer must ensure that each employee wears an alternative to protect the employee, such as a face shield, if the conditions permit it.
- When employees cannot wear facemasks due to a medical necessity, medical condition, or disability as defined in the Americans with Disabilities Act, or due to a religious belief; exceptions must be provided for a narrow subset of persons with a disability who cannot wear a facemask or cannot safely wear a facemask, because of the disability, as defined in the Americans with Disabilities Act, including a person who cannot independently remove the facemask.
- When employees have exposure to a person with suspected or confirmed COVID-19, the employer must provide: a respirator to each employee and ensure that it is provided and used; gloves; an isolation gown or protective clothing; and eye protection to each employee; and ensure that the PPE is used.
- For aerosol-generating procedures performed on an individual with suspected or confirmed COVID-19, the employer must provide: a respirator to each employee and ensure that it is provided and used; gloves; an isolation gown or protective clothing; and eye protection to each employee and ensure that the PPE is used.
- When an aerosol-generating procedure is performed on a person with suspected or confirmed COVID-19, the employer must limit the number of employees present during the procedure to only those essential for patient care and procedure support; the employer must ensure that the procedure is performed in an existing AIIR, if available; after the procedure is completed, the employer must

clean and disinfect the surfaces and equipment in the room or area where the procedure was performed.

- The employer must ensure that each employee is separated from all other people by at least six feet when indoors unless the employer can demonstrate that such physical distancing is not feasible for a specific activity (e.g., hands-on medical care) (note: the aforementioned provision does not apply to momentary exposure while people are in movement [e.g., passing in hallways or aisles]).

- In patient care areas, resident rooms, and for medical devices and equipment, the employer must follow standard practices for cleaning and disinfection of surfaces and equipment in accordance with the CDC's "COVID-19 Infection Prevention and Control Recommendations" and the CDC's "Guidelines for Environmental Infection Control."

- The employer must provide alcohol-based hand rub that is at least 60% alcohol or provide readily accessible hand washing facilities.

- The employer must screen each employee before each work day and each shift. Screening may be conducted by asking employees to self-monitor before reporting to work or may be conducted in-person by the employer (note: if a COVID-19 test is required by the employer for screening purposes, the employer must provide the test to each employee at no cost to the employee).

- The employer must require each employee to promptly notify the employer when the employee: is COVID-19 positive (i.e., confirmed positive test for, or was diagnosed by a licensed health care professional with, COVID-19); or was told by a licensed health care professional that he or she is suspected to have COVID-19; or is experiencing recent loss of taste and/or smell with no other explanation; or is experiencing both fever (≥100.4 °F) and new unexplained cough associated with shortness of breath.

- When an employer is notified that a person who was in the workplace(s) is COVID-19 positive, the employer must, within 24 hours: notify each employee who was not wearing a respirator and any other required PPE and has been in close contact with that person in the workplace (note: the notification must state the fact that the employee was in close contact with someone with COVID-19 along with the date(s) that contact occurred); notify all other employees who were not wearing a respirator and any other required PPE and worked in a well-defined portion of a workplace (e.g., a particular floor) in which that person was

present during the potential transmission period; notify other employers whose employees were not wearing respirators and any other required PPE and have been in close contact with that person, or worked in a well-defined portion of a workplace (e.g., a particular floor) in which that person was present, during the potential transmission period.

- If an employer knows an employee is COVID-19 positive or meets other related criteria, the employer must immediately remove that employee and keep the employee removed until he or she meets related return to work criteria.
- The employer must make decisions regarding an employee's return to work after a COVID-19-related workplace removal.
- The employer must support COVID-19 vaccination for each employee by providing reasonable time and paid leave (e.g., paid sick leave) to each employee for vaccination and any side effects experienced following vaccination.
- The employer must ensure that each employee receives training, in a language and at a literacy level the employee understands, and so that the employee comprehends at least the following: COVID-19, including how the disease is transmitted, the importance of hand hygiene to reduce the risk of spreading COVID-19 infections, ways to reduce the risk of spreading COVID-19 through the proper covering of the nose and mouth, the signs and symptoms of the disease, risk factors for severe illness, and when to seek medical attention; employer-specific policies and procedures on patient screening and management; tasks and situations in the workplace that could result in COVID-19 infection; workplace-specific policies and procedures to prevent the spread of COVID-19 that are applicable to the employee's duties (e.g., policies on Standard and Transmission-Based Precautions, physical distancing, physical barriers, ventilation, aerosol generating procedures); employer-specific multi-employer workplace agreements related to infection control policies and procedures, the use of common areas, and the use of shared equipment that affect employees at the workplace; employer-specific policies and procedures for PPE, including: when PPE is required for protection against COVID-19; limitations of PPE for protection against COVID-19; how to properly put on, wear, and take off PPE; how to properly care for, store, clean, maintain, and dispose of PPE; and any modifications to donning, doffing, cleaning, storage, maintenance, and disposal procedures needed to address COVID-19 when PPE is worn to address workplace hazards other than COVID-19; workplace-specific policies and procedures for cleaning and

disinfection; employer-specific policies and procedures on health screening and medical management; available sick leave policies, any COVID-19-related benefits to which the employee may be entitled under applicable federal, state, or local laws, and other supportive policies and practices (e.g., telework, flexible hours); the identity of the safety coordinator(s) specified in the COVID-19 plan; and how the employee can obtain copies of employer specific policies and procedures, including the employer's written COVID-19 plan, if required.

- The employer must ensure that each employee receives additional training whenever: changes occur that affect the employee's risk of contracting COVID-19 at work (e.g., new job tasks); policies or procedures are changed; or there is an indication that the employee has not retained the necessary understanding or skill.
- The employer must ensure that COVID-19 training is overseen or conducted by a person knowledgeable in the covered subject matter as it relates to the employee's job duties.
- The employer must ensure that COVID-19 training provides an opportunity for interactive questions and answers with a person knowledgeable in the covered subject matter as it relates to the employee's job duties.
- The employer must inform each employee that: employees have a right to required protections; and employers are prohibited from discharging or in any manner discriminating against any employee for exercising his or her right to required protections, or for engaging in actions that are required.
- Employers with more than 10 employees must retain all versions of the implemented COVID-19 plan.
- Employers should establish and maintain a COVID-19 log to record each instance identified by the employer in which an employee is COVID-19 positive, regardless of whether the instance is connected to exposure to COVID-19 at work.
- The COVID-19 log must contain, for each instance, the employee's name, one form of contact information, occupation, location where the employee worked, the date of the employee's last day at the workplace, the date of the positive test for, or diagnosis of, COVID-19, and the date the employee first had one or more COVID-19 symptoms, if any were experienced.

- The information in the COVID-19 log must be recorded within 24 hours of the employer learning that the employee is COVID-19 positive and must be maintained as though it is a confidential medical record and must not be disclosed except as required by federal law.

Section 3 Summary

Health care administrators should be familiar with OSHA's COVID-19-related Occupational Safety and Health Standards. Health care administrators should ensure that the requirements outlined by OSHA's COVID-19-related Occupational Safety and Health Standards are met and followed within their health care facility. Finally, health care administrators should regularly review internal policies and procedures to ensure they meet the requirements and regulations included in OSHA's COVID-19-related Occupational Safety and Health Standards.

Section 3 Key Concepts

- Health care administrators should be familiar with OSHA's COVID-19-related Occupational Safety and Health Standards.
- Health care administrators should ensure that the requirements outlined by OSHA's COVID-19-related Occupational Safety and Health Standards are meet and followed within their health care facility.

Section 3 Key Terms

Aerosol-generating procedure - a medical procedure that generates aerosols that can be infectious and are of respirable size

Airborne infection isolation room (AIIR) - a dedicated negative pressure patient-care room, with special air handling capability, which is used to isolate persons with a suspected or confirmed airborne-transmissible infectious disease

Close contact - being within six feet of any other person for a cumulative total of 15 minutes or more over a 24-hour period during that person’s potential period of COVID-19 transmission

Direct patient care - hands-on, face-to-face contact with patients for the purpose of diagnosis, treatment, and monitoring

Fully vaccinated - two weeks or more following the final dose of a COVID-19 vaccine

Section 3 Personal Reflection Question

Why is it important for health care administrators to consider the requirements included in OSHA's COVID-19-related Occupational Safety and Health Standards when assessing and implementing employee safety measures, practices, and procedures, including those related to bloodborne pathogen exposure incidents?

Section 4: The Occupational Safety and Health Act of 1970 (OSH Act)

In addition to COVID-19-related Occupational Safety and Health Standards, U.S. government organizations, such as OSHA, suggest that health care administrators should consider the laws included in the Occupational Safety and Health Act of 1970 (OSH Act) when assessing and implementing employee safety measures, practices, and procedures (note: considering the laws included in the OSH Act can help health care administrators ensure that a health care facility is safe for all employees). The Occupational Safety and Health Act of 1970 (OSH Act) may refer to the group of labor laws that govern the federal law of occupational health and safety in the private sector and the federal government in the U. S. This section of the course will highlight requirements outlined in the OSH Act. The information found within this section of the course was derived from materials provided by the United States Department of Labor (United States Department of Labor, 2021).

Occupational Safety and Health Act of 1970 (OSH Act)

- The OSH Act was passed to prevent workers from being killed or otherwise harmed at work.
- The OSH Act requires employers to provide their employees with working conditions that are free of known dangers.

- The OSH Act created the Occupational Safety and Health Administration (OSHA), which sets and enforces protective workplace safety and health standards.
- The OSH Act gives workers the right to safe and healthful working conditions. It is the duty of employers to provide workplaces that are free of known dangers that could harm their employees. This law also gives workers important rights to participate in activities to ensure their protection from job hazards.
- The OSH Act states that employers have the responsibility to provide a safe workplace. Employers must provide their employees with a workplace that does not have serious hazards and must follow all OSHA safety and health standards.
- The OSH Act states that employers must inform workers about hazards through training, labels, alarms, color-coded systems, chemical information sheets, and other methods.
- The OSH Act states that employers must train workers in a language and vocabulary they can understand.
- The OSH Act states that employers must keep accurate records of work-related injuries and illnesses.
- The OSH Act states that employers must perform tests in the workplace, such as air sampling, required by some OSHA standards.
- The OSH Act states that employers must provide hearing exams or other medical tests required by OSHA standards.
- The OSH Act states that employers must post OSHA citations and injury and illness data where workers can see them.
- The OSH Act states that employers must notify OSHA within eight hours of a workplace fatality or within 24 hours of any work-related inpatient hospitalization, amputation, or loss of an eye.
- The OSH Act states that employers must not retaliate against workers for using their rights under the law, including their right to report a work-related injury or illness.
- The OSH Act states that employers must comply with the General Duty Clause of the OSH Act. This clause requires employers to keep their workplaces free of

serious recognized hazards and is generally cited when no specific OSHA standard applies to the hazard.

- The OSH Act states that employers must provide most protective equipment free of charge. Employers are responsible for knowing when protective equipment is needed. Examples of protective equipment include: respirators, goggles, and gloves.
- OSHA gives workers and their representatives the right to see information that employers collect on hazards in the workplace. Workers have the right to know what hazards are present in the workplace and how to protect themselves. Additionally, the Hazard Communication standard, known as the “right-to-know” standard, requires employers to inform and train workers about hazardous chemicals and substances in the workplace.
- Many OSHA standards require employers to run tests of the workplace environment to find out if their workers are being exposed to harmful levels of hazardous substances such as lead or asbestos, or high levels of noise or radiation. These types of tests are called exposure monitoring. OSHA gives workers the right to get the results of these tests.
- OSHA conducts on-site inspections of worksites to enforce the OSHA law that protects workers and their rights. On-site inspections can be triggered by a worker complaint of a potential workplace hazard or violation.
- Workers and their representatives have the right to ask for an inspection without OSHA telling their employer who filed the complaint. It is a violation of the OSH Act for an employer to fire, demote, transfer, or retaliate in any way against a worker for filing a complaint or using other OSHA rights.
- When the OSHA area director determines that there has been a violation of OSHA standards, regulations, or other requirements, the area director issues a citation and notification of proposed penalty to an employer (typically following an inspection).
- A citation includes a description of the violation and the date by when the corrective actions must be taken. Depending on the situation, OSHA can classify a violation as serious, willful, or repeat. The employer can also be cited for failing to correct a violation for which it has already been cited. Employers must post a copy of a citation in the workplace where employees will see it.

- Workers and employers can contest citations once they are issued to the employer. Workers may only contest the amount of time the employer is given to correct the hazard. Workers or their representatives must file a notice of contest with the OSHA area office within 15 days of the issuance of a citation.
- Employers have the right to challenge whether there is a violation, how the violation is classified, the amount of any penalty, what the employer must do to correct the violation and how long they have to fix it. Workers or their representatives may participate in this appeals process by electing "party status." This is done by filing a written notice with the Occupational Safety and Health Review Commission (OSHRC).
- The OSHRC hears appeals of OSHA citations. The OSHRC is an independent agency separate from the Department of Labor.
- The OSHA area director evaluates complaints from employees or their representatives according to the procedures defined in the OSHA Field Operations Manual. If the area director decides not to inspect the workplace, he or she will send a letter to the complainant explaining the decision and the reasons for it.
- OSHA will inform complainants that they have the right to request a review of the decision by the OSHA regional administrator. Similarly, in the event that OSHA decides not to issue a citation after an inspection, employees have a right to further clarification from the area director and an informal review by the regional administrator.
- The OSH Act prohibits employers from retaliating against their employees for using their rights under the OSH Act. These rights include filing an OSHA complaint, participating in an inspection or talking to the inspector, seeking access to employer exposure and injury records, raising a safety or health issue with the employer, or any other workers' rights described above. Protection from retaliation means that an employer cannot punish workers by taking "adverse action," such as firing or laying off.
- If an employee has been retaliated against for using his or her rights, the individual must file a complaint with OSHA within 30 calendar days from the date the retaliatory decision has been both made and communicated to the employee (the worker). Following a complaint, OSHA will contact the complainant and conduct an interview to determine whether an investigation is necessary.

- If the evidence shows that the employee has been retaliated against for exercising safety and health rights, OSHA will ask the employer to restore that worker's job, earnings, and benefits. If the employer refuses, OSHA may take the employer to court.
- Employees may file a complaint with OSHA concerning a hazardous working condition at any time. However, an employee should not leave the worksite merely because he or she has filed a complaint. If the condition clearly presents a risk of death or serious physical harm, there is not sufficient time for OSHA to inspect, and, where possible, an employee has brought the condition to the attention of his or her employer, an employee may have a legal right to refuse to work in a situation in which he or she would be exposed to the hazard.
- If a worker, with no reasonable alternative, refuses in good faith to expose himself or herself to a dangerous condition, he or she would be protected from subsequent retaliation. The condition must be of such a nature that a reasonable person would conclude that there is a real danger of death or serious harm and that there is not enough time to contact OSHA and for OSHA to inspect. When possible, the employee must have also sought from his employer, and been unable to obtain, a correction of the condition.
- Since passage of the OSH Act in 1970, Congress has expanded OSHA's whistleblower protection authority to protect workers from retaliation under federal law. These laws protect employees who report violations of various workplace safety, airline, commercial motor carrier, consumer product, environmental, financial reform, health care reform, nuclear, pipeline, public transportation agency, railroad, maritime, and securities laws. Complaints must be reported to OSHA within set timeframes following the retaliatory action, as prescribed by each law.
- Health care administrators should note the following: OSHA offers cooperative programs under which businesses, labor groups, and other organizations can work cooperatively with OSHA; the OSHA Strategic Partnerships (OSP) provide the opportunity for OSHA to partner with employers, workers, professional or trade associations, labor organizations, and/or other interested stakeholders; through the Alliance Program, OSHA works with groups to develop compliance assistance tools and resources to share with workers and employers, and educate workers and employers about their rights and responsibilities.

Section 4 Summary

To ensure a health care facility is safe for all employees, health care administers should consider the laws included in the OSH Act. Health care administrators should ensure that the requirements outlined by the OSH Act are met and followed within their health care facility. Finally, health care administrators should regularly review internal policies and procedures to ensure they met the requirements and regulations outlined by the OSH Act.

Section 4 Key Concepts

- Health care administrators should be familiar with the laws included in the OSH Act.
- Health care administrators should ensure that the requirements outlined by the OSH Act are met and followed within their health care facility.

Section 4 Key Terms

Occupational Safety and Health Act of 1970 (OSH Act) - the group of labor laws that govern the federal law of occupational health and safety in the private sector and the federal government in the U. S.

Section 4 Personal Reflection Question

How can health care administrators ensure the requirements outlined by the OSH Act are met and followed within their health care organization?

Conclusion

Health care administrators can work to improve employee safety, while reducing bloodborne pathogen exposure incidents by following guidelines, requirements, and regulations outlined and provided by OSHA. Such guidelines, requirements, and regulations include the following: OSHA's guidelines for bloodborne pathogens, waste, sharps, and catheters; OSHA's Bloodborne Pathogens Standard (29 CFR 1910.1030); OSHA's COVID-19-related Occupational Safety and Health Standards; the Occupational

Safety and Health Act of 1970. Health care administrators should note that additional information regarding OSHA's bloodborne pathogen-related guidelines, requirements, and regulations may be found at https://www.osha.gov/bloodborne-pathogens.

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