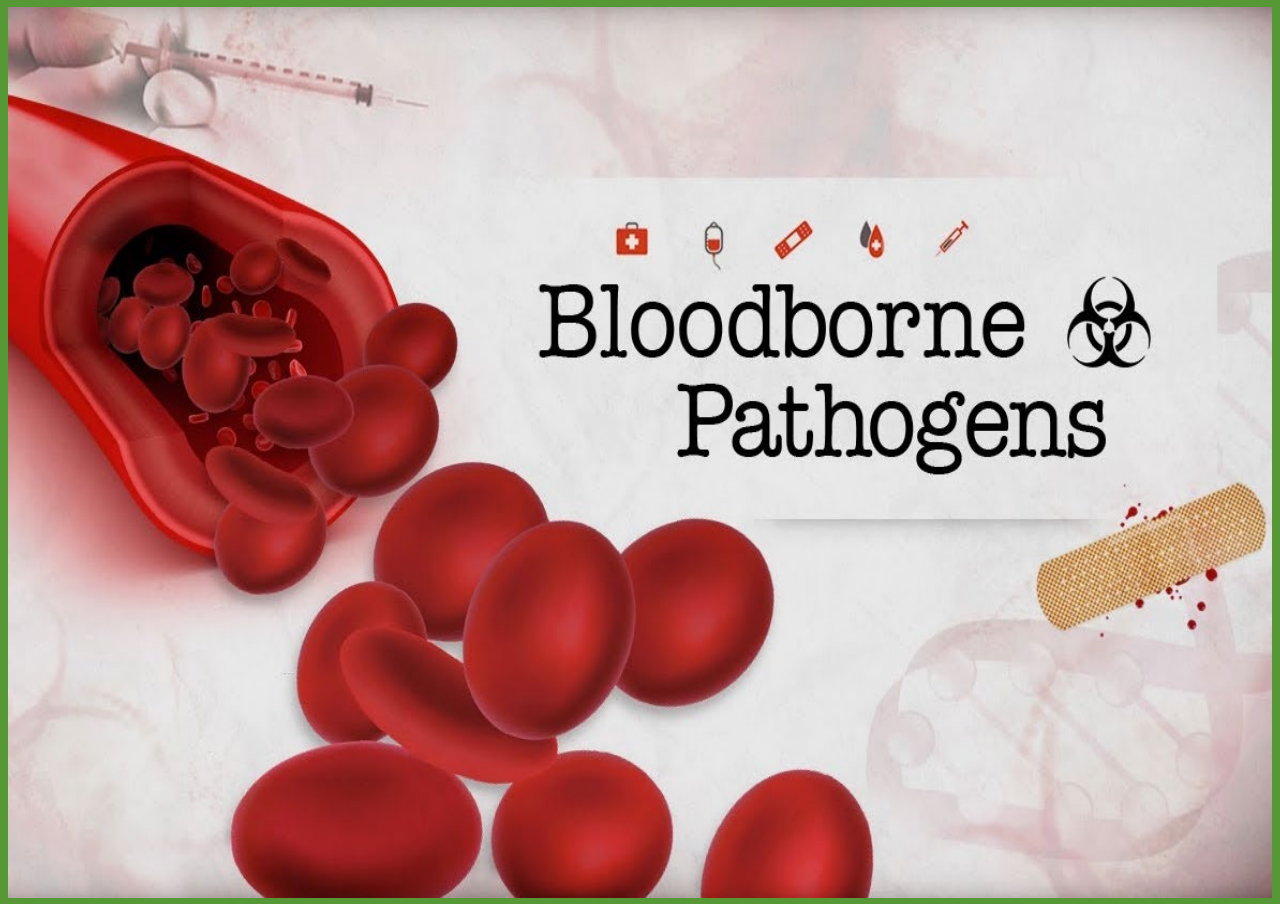


BLOODBORNE PATHOGENS TRAINING

LAPEER COUNTY COMMUNITY MENTAL HEALTH

STGW

GOAL OF COURSE

To provide information that helps increase employee awareness and knowledge of bloodborne pathogens and to further promote safety, protection, and prevention practices.

BLOODBORNE PATHOGENS

Bloodborne pathogens are pathogenic microorganisms that are present in human blood and can cause disease in humans. These microorganisms can be transmitted through contact with contaminated blood and bodily fluids.

Exposure means reasonably anticipated skin, eye, mucous membrane, and parental contact with blood or other potentially infectious materials (OPIM) that may result from the performance of an employee's duties.

Healthcare workers, emergency responders, public safety officers, sanitation workers, and housekeeping personnel are at an even greater risk of exposure because their occupations place them closer to blood exposure through skin exposures, mucous membrane, needle stick, and other sharps injuries.

Source: R 325.70002 Rule 2 MIOSHA Bloodborne Infectious Diseases Standard Definitions

CAUTION!

Potentially infectious bodily fluids from humans are:

- Semen
- Vaginal secretions
- Cerebrospinal fluid brain and spine
- Synovial fluid - joints
- Pleural fluid – around lungs
- Pericardial fluid – around heart
- Peritoneal fluid – abdominal cavity
- Amniotic fluid - sac of water surrounding fetus
- Saliva in dental procedures

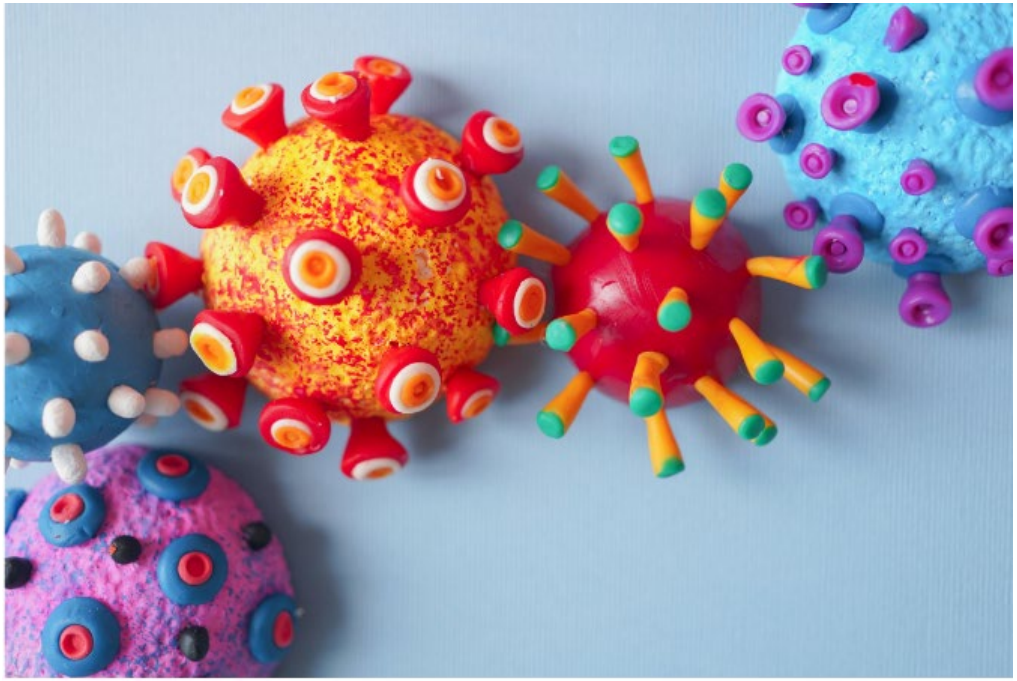
CAUTION!

Potentially infectious bodily fluids from humans are:

- Any body fluid that is visibly contaminated with blood
- All body fluids in situations where it is difficult (or impossible) to identify specific body fluids
- Any exposed tissue or organ (other than intact skin) from a living or deceased human
- Cell or tissue cultures containing HIV
- Organ cultures
- Culture medium or other solutions containing HIV or HBV
- Blood, organs, or other tissues from experimental animals infected with HIV or HBV

BLOODBORNE PATHOGENS WITH HIGHEST RISK:

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



HIV

HIV stands for human immunodeficiency virus. This is the virus that causes AIDS. HIV is different from most other viruses because it attacks the immune system. The immune system gives our bodies the ability to fight infections. HIV finds and destroys a type of white blood cell that the immune system must have to fight disease.

HEPATITIS B & C

Hepatitis B is a liver disease caused by the hepatitis B virus (HBV). It ranges in severity from a mild illness, lasting a few weeks (acute), to a serious, long-term (chronic) illness that can lead to liver disease or liver cancer. The greatest bloodborne risk to workers is infection from the hepatitis B virus.

Hepatitis C is a liver disease caused by the hepatitis C virus (HCV). HCV infection sometimes results in an acute illness, but most often becomes a chronic condition that can lead to cirrhosis of the liver and liver cancer.

HEPATITIS B (HBV) VACCINATION

- HBV vaccine is a safe and effective way to prevent disease and death. There is no confirmed evidence that indicates the HBV vaccine can cause chronic illness. Reports of unusual illnesses following a vaccine are most often related to other causes and are not related to the vaccine.
- Series of three injections.
- Currently, no requirement for routine boosters; however, this is still being assessed.

HEPATITIS B (HBV) VACCINATION

- The HBV vaccination is paid for by the employer.
- Employees who decline the HBV vaccination will be required to sign a form that states they waived their opportunity to receive the vaccination when first offered. They have the opportunity to change their mind later and accept the vaccination.
- The language on the declination form is from the OSHA Bloodborne Pathogens Standard.

HEPATITIS A (HAV) & OTHER VACCINATIONS

- The HAV vaccine is available through the public health department or your primary care physician.
- The HAV vaccine is a safe and effective way to prevent illness.
- The HAV vaccine is recommended for people who have occupation risk for HAV infection.
- Discuss other recommended vaccinations with your primary care physician

OTHER INFECTIONS

Along with HIV and Hepatitis A, B, and C; other infections that can be transmitted through contact with blood and body fluids include:

- Staph and Strep infections
- Gastroenteritis-salmonella and shigella
- Pneumonia
- Syphilis
- Tuberculosis
- Malaria
- Chicken Pox
- Herpes
- Urinary tract infections
- Blood infections
- The greatest risks of these are from HIV and Hepatitis B and C.

PATHOGEN TRANSMISSION

It's easy to get the impression that pathogens are transmitted by direct blood or bodily fluid contact, but the truth is that pathogens are transmitted in a number of ways.

- Airborne: Spread in small particles in the air, such as chicken pox

- Droplets: Spread in large droplets by coughing, talking, or sneezing, such as influenza

- Direct Contact: Spread by skin to skin contact or contact with other surfaces, such as the Herpes simplex virus

1993 – MIOSHA issued Bloodborne Pathogens Standard to protect works from risks of hazardous transmission. This standard established requirements for employers with workers exposed to blood or other potentially infectious materials. Employers must give employees an exposure control plan with details on employee protection measures.

The Exposure Plan Must Include:

- Exposure determination
- Schedule and methods to implement each applicable rule of the standard
- Contents or summary of the training program
- Procedures for the evaluation of exposure incidents
- Task-specific standard operating procedures

Source: R 325.70002 Rule 2 MIOSHA Bloodborne Infectious Diseases Standard Definitions

NEEDLESTICK SAFETY AND PREVENTION ACT

- Passed in 2000 and revised the bloodborne pathogens standard under OSHA to include safer medical devices (sharps with engineered sharps injury protections and needleless systems)
- Certain employers were required to:
  - Review & update exposure control plans to reflect changes in technology
  - Seek input on engineers and work practice controls from the affected health care workers
  - Maintain a sharps injury log

NEEDLESTICK SAFETY AND PREVENTION ACT

To prevent needle stick injuries, needles should not be recapped by hand, purposely bent or broken by hand, removed from disposable syringes, or otherwise manipulated by hand.

After they are used, disposable syringes and needles, scalpel blades, and other sharp items must be placed in puncture resistant containers for disposal. These containers should be located close to the use area.

OSHA'S BLOODBORNE PATHOGEN STANDARD

The mission of OSHA is to save lives, prevent injuries, and protect the health of America's workers.

OSHA's Bloodborne Pathogens Standard protects employees who work in occupations where they are at risk of exposure to blood or other potentially infectious materials. This standard requires employers to develop written documents to explain how they will implement each standard, provide training to employees, and protect the health and safety of their workers.

OSHA'S BLOODBORNE PATHOGEN STANDARD

OSHA developed the Bloodborne Pathogens and Hazard Communications Standard publication to assist employers with developing a plan that meets the requirements of the OSHA Bloodborne Pathogens Standard.

This document can be used as a template for employers when developing a customized workplace exposure control plan program. Plans must be tailored to the specific requirements of the employers work establishment. Written plans must be accessible to all employees, either online or in an area where they are available for review by all work shifts.

OSHA'S BLOODBORNE PATHOGEN STANDARD

The Bloodborne Pathogens and Hazard Communications Standard publication contains sample plans, which contain all of the elements that are required by the Bloodborne Pathogens and Hazard Communication Standards; therefore, employers must not eliminate any items when converting them for customized use.

If the reader has questions, they should consult the OSHA Bloodborne Pathogens and Hazard Communication Standards in their entirety for specific compliance requirements.

EXPOSURE DETERMINATION

Employers evaluate job tasks and procedures to determine risk of exposure to blood or OPIM.

Category A – occupation-related tasks that involve exposure or anticipated exposed to blood or OPIM, or that involve a likelihood for spills or splashes of blood or OPIM.

Category B – occupations that do not require tasks involving exposure to blood or OPIM on a routine or non-routine basis. Employees do not perform/assist in emergency medical care or first aid.

Source: R 325.70002 Rule 2 MIOSHA Bloodborne Infectious Diseases Standard Definitions

BLOODBORNE PATHOGENS TRAINING REQUIREMENTS

- Employers must provide bloodborne pathogen training to all Category A employees at no cost to the employee and during working hours

- Employees must be trained at time of initial assignment to Category A (before assuming duties that place the employee at risk) and annually thereafter

- Employers are responsible for maintaining training records for at least three years after the training occurred

STANDARD PRECAUTIONS

The CDC recommends implementation of Standard Precautions, including:

1. Handwashing
2. Personal Protective Equipment (PPE) - whenever touching or exposure to patient bodily fluids is anticipated
3. Respiratory hygiene (cough etiquette)
4. Sharps safety (engineering and work practice controls)
5. Safe injection practices
6. Sterile instruments and devices
7. Clean and disinfected environmental surfaces

STANDARD & UNIVERSAL PRECAUTIONS

Standard Precautions apply to blood, all body fluids, non-intact skin, mucous membranes, secretions, and excretions (except sweat), regardless of whether or not they contain visible blood.

Standard Precautions encompass the previous requirements of "universal precautions" and are the current best practice.

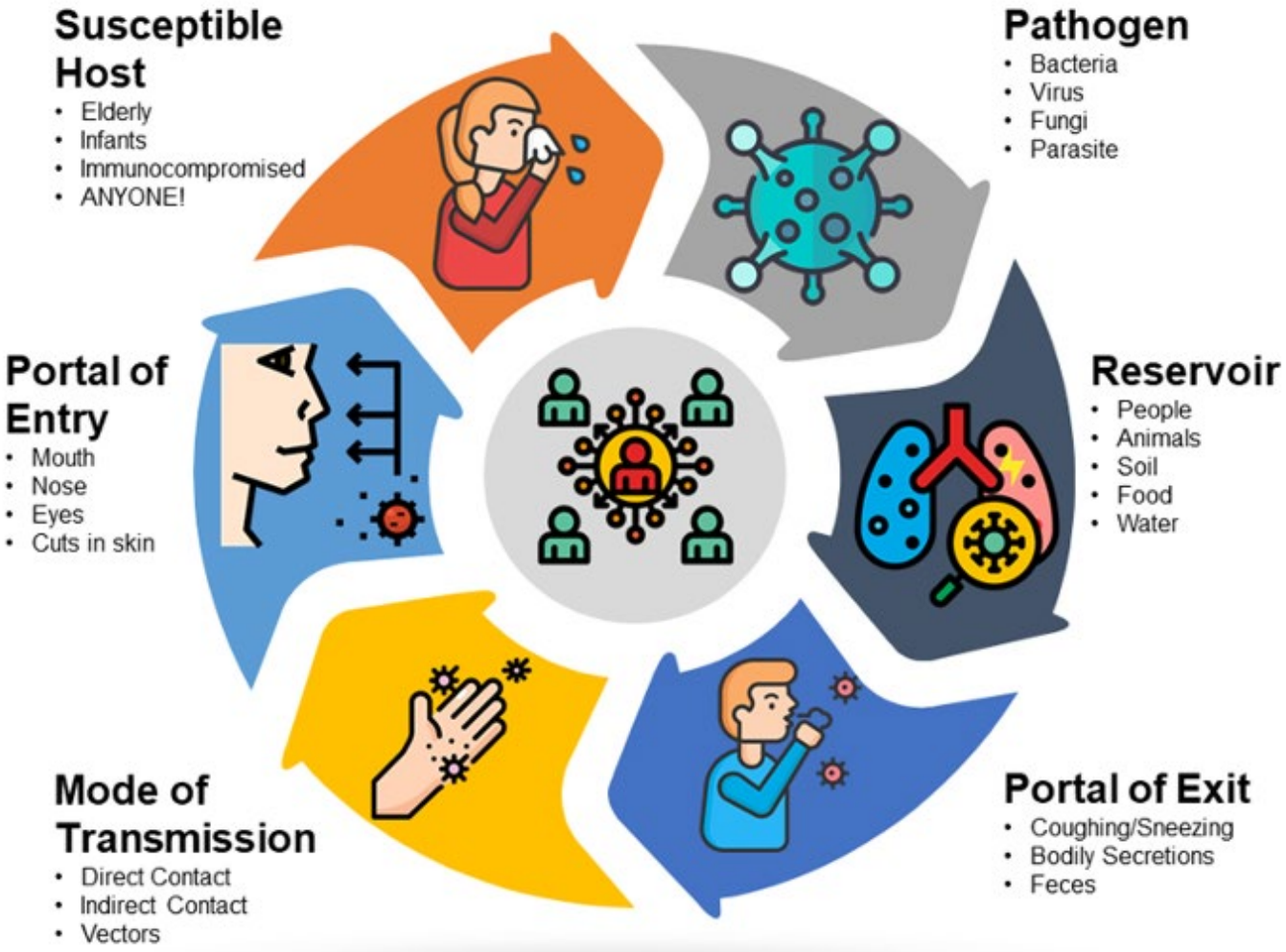
Source: R 325.70002 Rule 2 MIOSHA Bloodborne Infectious Diseases Standard Definitions

CHAIN OF INFECTION

- Bloodborne pathogens spread from person to person through six links in the chain of infection. The chain can be broken at any link to stop the germ from infecting another person.
- The links include:
  - **Pathogen / infectious agent –** what causes the disease (virus, bacteria, etc.)
  - **Reservoir –** where the pathogen lives (in people)
  - **Portal of Exit –** the way the pathogen leaves the reservoir (splatter of blood or OPIM)
  - **Mode of Transmission –** the way the pathogen can be passed on (direct contact with blood or OPIM)
  - **Portal of Entry –** the way the pathogen enters a new host (through broken skin or mucous membranes)
  - **Susceptible Host –** any person

Source: https://infectionpreventionandyou.org/protect-your-patients/break-the-chain-of-infection/#:~:text=The%20six%20links%20include%3A%20the,of%20entry%2C%20and%20susceptible%20host.

CHAIN OF INFECTION



Source: https://apps.hhs.texas.gov/providers/NF/credentialing/cna/infection-control/module2/Module_2_Chain_of_Infection_print.html

BREAKING THE CHAIN OF INFECTION

Healthcare workers can break the chain of infection and protect themselves and others from bloodborne pathogens

- Good hand hygiene
- Cleaning, disinfection & sterilization (Universal Precautions)
- Use of personal protective equipment (PPE)
- Control of aerosols and splatters
- Proper waste disposal and laundering
- Up-to-date on vaccinations
- Properly cleaning up blood and OPIM

Source: https://infectionpreventionandyou.org/protect-your-patients/break-the-chain-of-infection/#:~:text=The%20six%20links%20include%3A%20the,of%20entry%2C%20and%20susceptible%20host.

REDUCE THE RISK OF EXPOSURE TO BLOODBORNE PATHOGENS

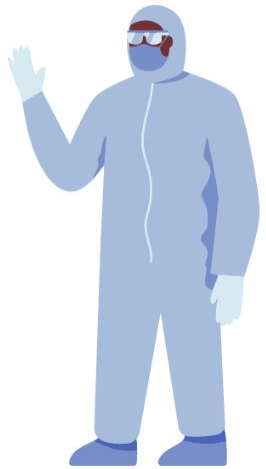
Employers and employees can take steps to reduce the risk. These include:

- Use of personal protective equipment (PPE)
- Work practices to minimize transmission
- Engineering controls to reduce exposure
- Cross contamination

PERSONAL PROTECTIVE EQUIPMENT (PPE)

PPE is specialized clothing or equipment worn by an employee to protect them from a hazard. Employers will provide PPE.

- Gloves
- Gowns
- Fluid-proof aprons
- Laboratory coats
- Head and foot coverings
- Face shields or masks
- Eye protection
- Mouthpieces
- Resuscitation bags
- Pocket masks
- Other ventilation devices



Source: R 325.70002 Rule 2 MIOSHA Bloodborne Infectious Diseases Standard Definitions

GLOVES

Gloves need to be changed after contact with each patient. Hands and other skin surfaces should be washed immediately after gloves are removed. Gloves should reduce the incidence of blood contamination of hands during phlebotomy, but they cannot prevent penetrating injuries caused by needles or other sharp instruments.

Gloves should be worn for:

- Touching blood and bodily fluids requiring universal precautions, mucous membranes, or non-intact skin of all patients
- Handling items or surfaces soiled with blood or bodily fluids to which universal precautions apply

HOW TO PUT ON AND TAKE OFF PPE

How to put on PPE (when all PPE items are needed)

Step 1
- Identify hazards & manage risk. Gather the necessary PPE.
- Plan where to put on & take off PPE.
- Do you have a buddy? Mirror?
- Do you know how you will deal with waste?

Step 2
- Put on a gown.

Step 3a
- Put on face shield.

OR

Step 3b
- Put on medical mask and eye protection (e.g. eye visor/goggles)

+

Note: If performing an aerosol-generating procedure (e.g. aspiration of respiratory tract, intubation, resuscitation, bronchoscopy, autopsy), a particulate respirator (e.g. US NIOSH-certified N95, EU FFP2, or equivalent respirator) should be used in combination with a face shield or an eye protection. Do user seal check if using a particulate respirator.

Step 4
- Put on gloves (over cuff).

How to take off PPE

Step 1
- Avoid contamination of self, others & the environment
- Remove the most heavily contaminated items first

Remove gloves & gown
- Peel off gown & gloves and roll inside, out
- Dispose gloves and gown safely

Step 2
- Perform hand hygiene

Step 3a
If wearing face shield:
- Remove face shield from behind
- Dispose of face shield safely

Step 3b
If wearing eye protection and mask:
- Remove goggles from behind
- Put goggles in a separate container for reprocessing
- Remove mask from behind and dispose of safely

Step 4
- Perform hand hygiene

WORK PRACTICES

Work practices reduce the likelihood of exposure to bloodborne pathogens by altering the manner in which a task is performed.

- All PPE is removed before leaving the work area and place in designated area for storage, washing, decontamination, or disposal
- Garments penetrated by blood or OPIM are removed immediately or as soon as possible
- Hand hygiene is completed prior to donning (putting on) and doffing (taking off) PPE and any time hands are soiled at any point during doffing PPE

Source: R 325.70002 Rule 2 MIOSHA Bloodborne Infectious Diseases Standard Definitions

WORK PRACTICES

- Employers provide readily accessible handwashing stations
  - If not possible, employers provide appropriate alcohol based hand sanitizer
  - If not possible, employees perform hand hygiene soon as possible
- Employees perform hand hygiene immediately after removing gloves or other PPE
- Employees wash hands with soap and water, or flush mucous membranes with water immediately, if contamination with blood or OPIM is suspected

Source: R 325.70002 Rule 2 MIOSHA Bloodborne Infectious Diseases Standard Definitions

WORK PRACTICES

- Used needles/sharps will not be sheared, bent or broken and will not be recapped or resheathed where other disposal methods are practical

- Needle recapping or removal will be done with use of a mechanical device or a one-handed technique

- Needles/sharps will be disposed of in closable, leak proof, puncture-resistant, disposable containers that are labeled or color-coded, according to the provisions of R 325.70014

Source: R 325.70002 Rule 2 MIOSHA Bloodborne Infectious Diseases Standard Definitions

WORK PRACTICES

- Clean and disinfect equipment, work tools, and/or surfaces to prevent the next person from coming into contact with potentially infected bodily fluids

- If you believe that blood or other potentially contaminated bodily fluid was splashed into your eyes, go to an emergency eyewash station immediately and flush your eyes

- Properly dispose of contaminated items in appropriately labeled bags or containers to help prevent others from being exposed

WORK PRACTICES

- Eating, drinking, smoking, applying cosmetics, or handling contact lenses is prohibited in work areas where there is reasonable likelihood of exposure

- Food and drink will not be stored in refrigerators, freezers, shelves, cabinets, or countertops where blood or OPIM is present or in areas of possible contamination

- Procedures involving blood or OPIM will be performed to minimize splashing, spraying, and aerosolization

- Mouth pipetting or suctioning is prohibited

Source: R 325.70002 Rule 2 MIOSHA Bloodborne Infectious Diseases Standard Definitions

ENGINEERING CONTROLS

Engineering controls isolate or remove bloodborne pathogen hazard from the workplace. These can include:

- Sharps disposal containers
- Self-sheathing needles
- Sharps with engineered sharps injury protections and needleless systems

Source: R 325.70002 Rule 2 MIOSHA Bloodborne Infectious Diseases Standard Definitions

CROSS CONTAMINATION

Cross contamination is the spread of germs from one surface to another by contact.

- Disinfect surfaces that may have been in contact with blood or OPIM

- Change your gloves after contact with a patient

- Refrain from touching personal items (such as a pen or notepad) when you are wearing gloves that could be contaminated

Source: https://www.cdc.gov/niosh/topics/correctionalhcw/cross.html#:~:text=Cross%2Dcontamination%20is%20the%20spread,HBV%2C%20and%20other%20bloodborne%20pathogens.

HOUSEKEEPING & DISINFECTION STANDARDS

- Employers will assure worksites are maintained in a clean and sanitary condition.

- Work surfaces will be cleaned and decontaminated with an appropriate disinfectant after completion of procedures, when surfaces are contaminated, and at the end of a work shift.

- Equipment that may be contaminated with blood and OPIM will be decontaminated as necessary.

- Reusable bins, pails and cans will be decontaminated upon visible contamination

Source: R 325.70002 Rule 2 MIOSHA Bloodborne Infectious Diseases Standard Definitions

HOUSEKEEPING & DISINFECTION STANDARDS

- Broken glass that is potentially contaminated will be cleaned up with mechanical means (such as a brush and dust pan, tongs, cotton swabs, or forceps)

- Blood or OPIM specimens will be placed in a closable, leak proof container during collection, handling, processing, storing, transporting, or shipping

- Reusable sharps contaminated with blood or OPIM will not be stored or processed in a manner that requires employees to reach by hand into the containers where they are placed

Source: R 325.70002 Rule 2 MIOSHA Bloodborne Infectious Diseases Standard Definitions

DECONTAMINATION

An important part of preventing exposure to bloodborne pathogens is proper decontamination and cleanup. As you would with all bodily fluids, assume contamination and wear protective gloves.

A bodily fluid disposal kit contains fluid cleanup materials like:

- Absorbent powder
- Disinfectant solution
- Disposal bag

DECONTAMINATION

1. Don appropriate PPE
2. Sprinkle the powder on liquid body fluids, like blood. Once the fluid is absorbed, scoop it up and place it in the disposal bag.
3. Thoroughly wipe down all contaminated surfaces with the disinfectant solution to ensure that all bloodborne pathogens are destroyed. If you do not have a disinfectant solution available, substitute with a solution of a 1/4 cup of bleach per gallon of water.
4. Properly dispose of all contaminated gloves, towels, rags, absorbent powder, etc. and place it all in the disposal bag

REGULATED MEDICAL WASTE

Regulated medical waste includes blood or OPIM fluids that are in a liquid form.

- If absorbed liquids can be released when compressed (like liquid wringing from a sponge), it is also a regulated medical waste.

- Items caked with dried blood or OPIM (including contaminated sharps or waste containing blood or OPIM)

Source: R 325.70002 Rule 2 MIOSHA Bloodborne Infectious Diseases Standard Definitions

REGULATED WASTE DISPOSAL

- Regulated waste should be put in closable, leak proof containers or color coded / labeled bags

- Contaminated sharps are immediately disposed of in closable, leak proof, puncture-resistant, disposable containers that are labeled / color coded

- Disposal of all medical waste is in compliance with Act No. 368 of the Public Acts of 1978

Source: R 325.70002 Rule 2 MIOSHA Bloodborne Infectious Diseases Standard Definitions

REGULATED MEDICAL WASTE

- Items like small bandages or tissue, which we normally throw in the wastebasket, are only considered regulated waste at medical facilities where the amount of this type of waste is extensive.
- If you are able to "wring out" the blood in a bandage or tissue, it would then be considered regulated medical bio waste.

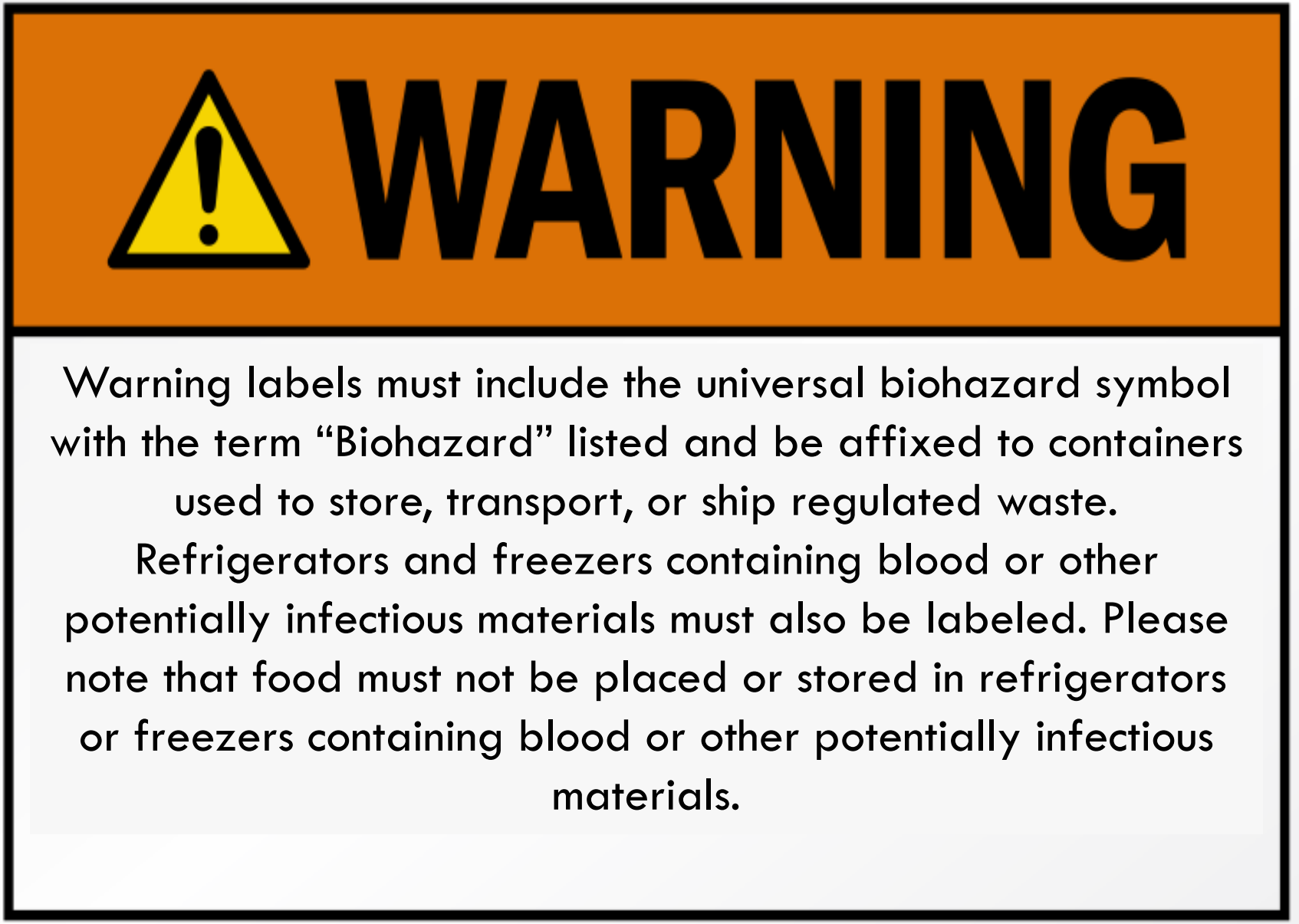
When in doubt, treat all waste as regulated waste to avoid contamination.

REGULATED MEDICAL WASTE

- Warning labels with the universal biohazard symbol and "Biohazard" must be on bags / containers or regulated waste and contaminated laundry

- Labels must be fluorescent orange or orange-red

- Red bags or containers may be substituted for biohazard labels



Warning labels must include the universal biohazard symbol with the term “Biohazard” listed and be affixed to containers used to store, transport, or ship regulated waste. Refrigerators and freezers containing blood or other potentially infectious materials must also be labeled. Please note that food must not be placed or stored in refrigerators or freezers containing blood or other potentially infectious materials.

CONTAMINATED LAUNDRY

- Soiled laundry will be treated as if it were contaminated with blood or OPIM and handled as little as possible
- Laundry will be bagged at the location it was used
- Laundry will be place or transported in labeled / color coded bags or containers. If the laundry is wet, it will transported in leak proof bags
- Laundry workers will be provided and wear protective gloves and other appropriate PPE while handling contaminated laundry
- Soiled laundry should never be rinsed prior to disposal

Source: R 325.70002 Rule 2 MIOSHA Bloodborne Infectious Diseases Standard Definitions

EXPOSURE INCIDENT

Exposure incident is a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or OPIM resulting from the performance of an employee's duties.

If there was no infiltration of mucous membranes or open skin surfaces, it is not considered an occupational exposure. If an employee administering first aid on normal bleeding is wearing the appropriate gloves; an exposure incident does not exist.

Source: R 325.70002 Rule 2 MIOSHA Bloodborne Infectious Diseases Standard Definitions

INCIDENT REPORTING

After an incident, an accident investigation report must be completed. If blood is spilled, thoroughly document the spill location, who cleaned it up, what cleanup method was used, and note the waste disposal location.

Remember to report all incidents involving blood or bodily fluid **immediately** to your supervisor so the company can determine if an exposure incident occurred and offer a post-exposure medical evaluation if necessary.

POST-EXPOSURE MEDICAL EVALUATION

- Determines if the employee was exposed to infected bodily fluids.
- Completely confidential for both the exposed person and the source person. An employer will never know the results of such testing.
- Documents the route of exposure and identifies the source individual. If the source individual consents, the evaluation includes testing his or her blood.
- Only the source individual and the exposed employee will receive the results.
- Completed at no cost to the employee

OSHA 300 LOG

All work-related needle sticks, cuts, and injuries from contaminated sharps must be recorded on the OSHA 300 Log. The record must include 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.

OSHA®
Occupational Safety
and Health Administration

OSHA 300 LOG

To protect confidentiality, the employee's name should not be entered on the log. Additionally, medical records are kept confidential; however, they are available to each employee upon request. The records will include your hepatitis B vaccination status, any post exposure evaluation and follow-up results, and any written opinions or other specific information provided by healthcare professionals.

Training records include date of training, content, trainer's qualifications, names, and job titles of the trainees.

OSHA®
Occupational Safety
and Health Administration

OSHA 300 LOG

There are times when you must **not** include an employee's name on the OSHA 300 Form. Consider the following types of injuries/illnesses to be privacy concerns:

- An injury/illness to an intimate body part or reproductive system
- An injury/illness resulting from a sexual assault
- A mental illness
- If the employee requests their name not be entered
- HIV infection, hepatitis, or tuberculosis, a needle-stick injury or cut from a sharp object that is contaminated with blood or other potentially infectious material other illnesses

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and Health Administration

OSHA 300 LOG

Again, you must not enter the employee's name on the OSHA 300 for these cases. Instead, enter "privacy case" in the space normally used for the employee's name. Keep a separate, confidential list of the case numbers and employee names for your organization's privacy concern cases so that you can update the cases and provide information to the government if asked to do so.

OSHA®
Occupational Safety
and Health Administration

OSHA 300 LOG

If you have a reasonable basis to believe that information describing the privacy concern case may be personally identifiable (even though the employee's name has been omitted), you may use discretion in describing the injury or illness on both the OSHA 300 and 301 forms. You must enter enough information to identify the cause of the incident and the general severity of the injury or illness, but you do not need to include details of an intimate or private nature.

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and Health Administration

OVERVIEW

OSHA's Bloodborne Pathogens Standard is designed to protect millions of workers by preventing the spread of infections due to exposure. Bloodborne pathogens are pathogenic microorganisms that are present in human blood and can cause disease. They include the hepatitis B and C viruses and the human immunodeficiency virus (HIV), which leads to AIDS.

It is our shared responsibility to implement safe work practices to protect ourselves and others from exposure. Practice safety by using PPE when caring for a patient, cleaning potentially hazardous spills, handling used needles, and discarding waste; and remember to record and report exposure incidents immediately.

LAPEER COUNTY COMMUNITY MENTAL HEALTH

STGW