Universal Precautions, Infection Control, and OSHA

Safety in the Workplace

- Tens of thousands of cases of diseases related to bloodborne pathogens are reported annually in the workplace.
- Healthcare professionals are at an increased risk due to possible exposure to potentially infectious materials.

Bloodborne Pathogens

- Bloodborne pathogens are bacteria, viruses, and other pathogenic microorganisms that can only be detected by medical tests.
- Examples: Hepatitis B, Hepatitis C, human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome (AIDS), malaria and Ebola
- Potentially at risk if in contact with blood or other body fluids visibly contaminated with blood

Prevention

- Vaccinations may help prevent the transmission of diseases.
- Currently, only one disease can be prevented by vaccination—Hepatitis B

Universal Precautions

- A standard set of guidelines to prevent the transmission of bloodborne pathogens from exposure to blood and other potentially infectious materials (OPIM)
- Introduced by the Centers for Disease Control (CDC) in 1985, mostly in response to the human immunodeficiency virus (HIV) epidemic.

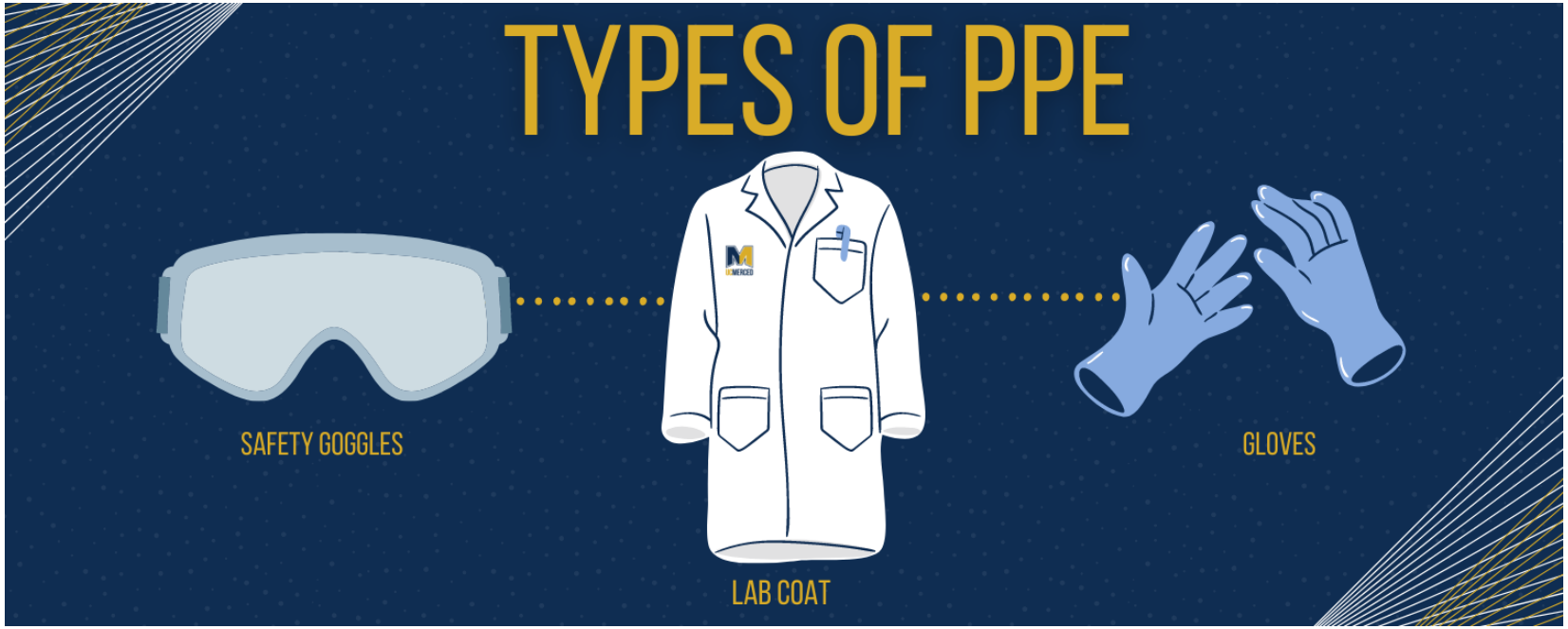
Universal Precautions

- The practice of avoiding direct contact with patient. Essentially, these precautions are good hygiene habits, such as hand washing and other barriers to help reduce the possibility of a workplace hazard.

Reminder: All patients are possible carriers of bloodborne pathogens, such as hepatitis B and C and human immunodeficiency virus (HIV).

Personal Protective Equipment (PPE)

- Serves as a barrier to protect the skin, mucous membranes, airway, and clothing. It includes gowns, gloves, masks, and face shields or goggles



Gloves

- Must be worn when touching blood, body fluids, secretions, excretions, mucous membranes, or non-intact skin.
- Change when there is contact with potentially infected material in the same patient to avoid cross-contamination.
- Remove before touching surfaces and clean items.
- Wearing gloves does not mitigate the need for proper hand hygiene.

Gloves—Removal

- The safe removal of PPE also follows a specific sequence that requires special attention to areas that are now considered contaminated: (1) gloves should be removed by first grasping the palm of the other hand and peeling off the first glove, keeping hold of the removed glove in the gloved hand, slide the fingers of the ungloved hand under the remaining glove and peel it off over the first glove

Handwashing

1. Wet hands with water then add soap.
2. Use friction to generate lather and wash hands for at least 10 seconds.
3. Rinse well under a stream of water.
4. Dry hands thoroughly.
5. Turn off faucet with paper towel.

When to Wash your Hands

Beginning and end of the workday

Before and after each patient contact

Before and after using gloves

Before eating or handling medications

After using the toilet

After wiping the nose or touching the face

After touching contaminated surfaces

If skin or mucous membranes come in direct contact with blood, wash or flush with water as soon as possible

Masks/Goggles/Eye Visor/Face Shield

- Wear a mask and eye protection or face shield during procedures that may spray or splash blood, body fluids, secretions, or excretions.

Gown

- Wear to protect skin or clothing during procedures that may spray or splash blood, body fluids, secretions, or excretions.

Housekeeping Practices

- Bloodborne pathogens and OPIM can remain infectious for up to 7 days and may not be visible
- Clean floors, work surfaces and equipment regularly
- Use EPA-approved disinfectants when cleaning areas that, or may be, contaminated

Housekeeping Practices

- Cleaning liquid blood: use an absorbent and a small disposable scraper and dustpan before disposing in a biohazard bag.
- After removal, use a proper disinfectant. OSHA states you can also use 1 to 10 parts diluted bleach solution

Proper Disposal

- Use biohazard receptacles to ensure the proper handling and disposal to limit potential risks.
- Typically, containers used or red or marked with red markings.
- Blood-stained clothing should also be placed in biohazard bags and should not be washed due to potential contamination.

Infection/Exposure Control

- Even when preventive and control measures are taken, exposure incidents still can occur.
- Have a plan.
- Designate specific employees as first responders.
- Training available through various organizations including American Heart Association (AHA), the American Red Cross, OSHA, and others.

Infection Control Plan

- Reduce the risk of potential patients/staff
- Wear PPE
- Sterilization and disinfection of patient-care items and devices
- Policies and procedures for contaminated surfaces
- Key personnel designated as first responders
- Annual review of plan and staffing

Review of Organizations

- Occupational Safety and Hazard Association (OSHA)
- Centers for Disease Control and Prevention
- American Heart Association (AHA)
- American Red Cross

- The **Centers for Disease Control and Prevention** (**CDC**) is the national public health agency of the United States. It is a United States federal agency under the Department of Health and Human Services.
- The agency's main goal is the protection of public health and safety through the control and prevention of disease, injury, and disability in the US and worldwide. The CDC focuses national attention on developing and applying disease control and prevention. It especially focuses its attention on infectious disease, food borne pathogens, environmental health, occupational safety and health, health promotion, injury prevention, and educational activities designed to improve the health of United States citizens. The CDC also conducts research and provides information on non-infectious diseases, such as obesity and diabetes, and is a founding member of the International Association of National Public Health Institutes.

The Occupational Safety and Hazard Association (OSHA) is the main federal agency charged with **enforcement of safety and health legislation.** Their mission is to assure the safety and health of America's workers by setting and enforcing standards; providing training, outreach and education; and encouraging continual improvement in workplace safety and health.

OSHA posters must be posted in a common place providing employees with information on their safety and health rights.
This information is available at the OSHA website at http://www.osha.gov/index.html or by calling (800) 321-OSHA.

The OSHA training institute can also provide training to employees on proper procedures to prevent work-related injuries.

- The American Heart Association is a nonprofit organization in the United States that funds cardiovascular medical research, educates consumers on healthy living and fosters appropriate cardiac care to reduce disability and deaths caused by cardiovascular disease and stroke.
- The AHA sponsors training on First Aid, CPR, AED, Bloodborne Pathogens and more.

- The American National Red Cross is a nonprofit humanitarian organization that provides emergency assistance, disaster relief, and disaster preparedness education in the United States.
- The Red Cross offers training on First Aid, CPR, AED, Bloodborne Pathogens and more.

Conclusion

- Once the dangers of bloodborne pathogens are understood, protecting yourself and others is key to safeguard the health of everyone at the workplace.
- Since your job duties put you at risk, protect yourself:
  - Hepatitis B vaccine
  - Take universal precautions
  - Use control measures
  - Follow safety practices
  - Be aware of signs, labels and colors to alert you of biohazard materials
- Be prepared *before* an incident!