Bloodborne Pathogen Program
Introduction

- Approximately 5.6 million workers in healthcare are at risk of exposure to Bloodborne Pathogens.
- Healthcare workers whose occupational duties expose them to blood and to other potentially infectious materials are at risk of contracting any one of these bloodborne pathogens.
What are Bloodborne Pathogens?

- **Bloodborne Pathogens** are microscopic organisms that are present in blood, tissue, blood products or other potential infectious materials (OPIM).

- The bloodborne pathogens of most concern in the workplace are:
  - Human Immunodeficiency Virus (HIV)
  - Hepatitis B Virus (HBV)
  - Hepatitis C Virus (HCV)
Human Immunodeficiency Virus (HIV)

- Almost 1.5 million people in the U.S. have been infected with HIV.

- Infection with HIV in the workplace represents a small but real hazard to healthcare workers.
  - If the source patient has HIV, the chance of transmission of the disease to the exposed employee is 3-4%.

- HIV affects the bodies immune system and can lead to AIDS.

- Symptoms of early infection include:
  - Febrile illness resembling mononucleosis or influenza, which resolves spontaneously
  - Body Aches
  - Maculopapular Rash (similar to measles)
  - Headache
  - Night Sweats
  - Weight Loss
  - Swollen Glands
Hepatitis B Virus (HBV)

- There are currently about one million people in the U.S. with HBV.
- The Center for Disease Control (CDC) believes that as many as 18,000 healthcare workers may be infected by HBV each year.
- HBV is 100 times more infectious than HIV.
- The virus can live on dried surfaces for up to one week.
- HBV is vaccine preventable.

Symptoms of infection include:
- Loss of appetite
- Nausea
- Vomiting
- Fever
- Abdominal Pain
- Jaundice
Hepatitis C Virus (HCV)

- The U.S. currently has about four million Hepatitis C patients.
- If an employee sustains as exposure involving a patient with HCV, the chance that the employee will become infected with HCV is 2-10%.
- The virus affects the liver.
- There is no vaccine to prevent HCV.
- Symptoms of infection include:
  - Loss of appetite
  - Nausea
  - Abdominal Pain
  - Jaundice
  - Fatigue
  - Dark Urine
Modes of Transmission of Bloodborne Pathogens

- Two specific criteria for transmission to occur:
  - The blood/body fluid must be infected AND
  - The virus must enter the body – “exposure incident”

- Tasks and activities that might involve exposure:
  - Cleanup Blood/OPIM
  - Contaminated Equipment
  - Needlesticks
  - Handling of Blood or Blood Products
  - General Healthcare
Bloodborne Pathogen Standard

- OSHA’s *Bloodborne Pathogen Standard* prescribes safeguards to protect workers against the health hazards from exposure to blood and other potentially infectious materials, and to reduce their risk from this exposure.

- *Bloodborne Pathogen Standard* Elements:
  - Exposure Control Plan (ECP)
  - Protective Equipment
  - Environmental Cleaning
  - Infectious Waste
  - Hepatitis B Vaccine and Post-Exposure Evaluation and Follow-up
  - Communication of Hazards to Employees
  - Employee Training
Exposure Control Plan
The Orthopaedic & Fracture Clinic is committed to protecting employee safety & health. To that end, we have developed this Exposure Control Plan (ECP) to protect workers against potential exposure to bloodborne pathogens in accordance with OSHA standard 29CFR 1910.1030, “Occupational Exposure to Bloodborne Pathogens”.

The following slides will outline OFC’s Exposure Control Plan (ECP).
Exposure Control Plan Elements

- Employee exposure determination

- Methods of implementation
  - Universal Precautions and Standard Precautions
  - Work practice policies & procedures

- Bloodborne pathogen exposure procedures and evaluation of exposure incidents

- Recordkeeping

- Annual Review of the Exposure Control Plan

- Input from employees regarding effective engineering and work practice controls
Employee Exposure Determination

- There are employees in our organization that have occupational exposure to bloodborne pathogens.
  - Occupational Exposure means reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious material (OPIM) that may result from the performance of an employee’s duties.

- Our policy is to conduct exposure determinations throughout the facility without regard to the use of personal protective equipment (PPE).

- The Safety Committee conducts, evaluates, and annually reviews exposure determinations. This process involves identifying all the job descriptions, tasks, or procedures in which our employees may have occupational exposure to blood or OPIM.
Methods of Implementation and Compliance

- Universal Precautions and Standard Precautions

  - The Orthopaedic & Fracture Clinic will use the *Universal Precautions* approach to infection control.
    - *All human blood and other potential infectious body fluids will be treated as though they are known to be infectious for HBV, HCV, HIV and other bloodborne pathogens.*

  - The principle of *Standard Precautions* is also practiced at The Orthopaedic & Fracture Clinic.
    - *All body fluids and substances are considered infectious, and amplifies Universal Precautions in that it incorporates measures that protect both the employee and the patient.*
Exposure Procedures

- The Orthopaedic & Fracture Clinic reports, investigates, and documents all exposure incidents as soon as possible regardless of whether first aid was rendered.

- An “exposure incident” means specific eye, mouth, other mucous membrane, nonintact skin, or parenteral contact with blood or OPIM that result from the performance of an employee’s duties.
Steps to follow when an exposure occurs:

1. Immediately inform the Department Supervisor. The employee’s immediate needs will be addressed first.

2. The Department Supervisor or Infection Prevention team member will help the employee and source (patient) fill out the Exposer Packet. They will ensure consent is obtained from both the employee and source (if known) to have the exposure tests run (follow exposure packet instructions). Exposure Packets are located in the Nursing, PT, MRI and Administration departments.

3. The employee will be offered post-exposure evaluation and follow-up according to the OSHA Standard.

4. The employee will be provided with a copy of the evaluating healthcare professional’s written opinion within 15 days of the completion of the evaluation.
Post Exposure Record Keeping

- The Orthopaedic & Fracture Clinic, P.A. will establish and maintain an accurate record for each employee with an occupational exposure.

- Records are kept confidential unless the employee gives written consent.

- Medical records must be maintained for duration of employment plus 30 years according to OSHA’s rule governing access to employee exposure and medical records.
Evaluation of Circumstances Surrounding Exposure Incidents

- It is OFC’s policy to evaluate the circumstances (including the route(s) of exposure) under which all occupational exposure incidents occur.

- This evaluation is conducted as soon as possible after a report of an exposure incident is submitted.

- For each reported exposure incident the Safety Committee will meet to gather information and evaluate safer procedures.
Engineering and Work Practice Controls

- The Safety Committee along with input from employees and supervisors will select appropriate and effective engineering controls to prevent or minimize exposure incidents.

- Employees with expertise and experience in particular professions, specialties, and departments will evaluate new products that will be used in their area(s) of practice.

- Follow-up evaluations of products/policies and procedures are conducted annually. Follow-up training is provided if problems are discovered with policies and procedures or currently used devices.
Engineering and Work Practice Controls

- Where occupational exposure remains after institution of these controls, employees are required to wear Personal Protective Equipment (PPE).

- At this practice the following engineering controls are used:
  - Placing sharp items (e.g., needles, scalpels, etc.) in puncture-resistant, leak-proof, labeled containers.
  - Preforming procedures so that splashing, spraying, splattering, and producing drops of blood or OPIM is minimized.
  - Removing soiled PPE as soon as possible.
  - Cleaning and disinfecting all equipment and work surfaces potentially contaminated with blood or OPIM.
  - Thorough hand washing with soap and water immediately after providing care or hand cleanser where hand washing facilities are not available.
  - Prohibition of eating, drinking, applying cosmetics, handling contact lenses, and so on in work areas where exposure to infectious materials may occur.
  - Only employees who have been trained to assist with medical procedure are to assist.
Update of Exposure Control Plan

- The Orthopaedic & Fracture Clinic’s Exposure Control Plan is reviewed and updated at least annually (and whenever necessary) to include:
  - New or modified tasks or procedures that affect occupational exposure.
  - Progress in implementing the use of needleless systems and sharps with engineered sharps injury protection.
  - New or revised job position(s) that involve occupational exposure.
  - Reviews and evaluations of exposure incidents that have occurred since the previous update.
  - Reviews and responses to information indicating that the existing exposure control plan is deficient in any area.

- All employees are encouraged to provide suggestions on improving the procedures they perform in their departments.
Personal Protective Equipment
Personal Protective Equipment

Personal Protective Equipment (PPE) is specialized clothing or equipment worn by an employee for protection against infectious materials.

PPE must be properly cleaned, laundered, repaired, and disposed of at no cost to employees.

OFC provides protective equipment near all locations where infectious materials are generated.

Types of PPE:
- Masks
- Goggles
- Face Shields
- Gloves
- Gowns
Personal Protective Equipment Review

- An analysis review of PPE shall be completed at least annually by the Safety Committee, along with employees and supervisors. Analysis data will be used to make equipment changes as necessary.

- Department supervisors will assess the workplace to determine if hazards are present, or likely to be present, which will necessitate the use of PPE.

- If hazards are present, or likely present, supervisors shall have the appropriate PPE available and have affected employees use the PPE as appropriate for each specific procedure where exposure to hazards is possible within their department.
Supervisors will be responsible for department specific-training in the following areas:
- What PPE is necessary within the department.
- When PPE is necessary within the department.
- How to properly inspect for, wear or damage, put on, adjust, and remove PPE that is used within the department.
- Limitations of the PPE selected for the department.
- How to properly care for and store disposable and non-disposable PPE used within the department.

It is the employee’s responsibility to follow personal protective equipment guidelines.

If an employee feels more protection should be provided for certain procedures, they should make this request to the department supervisor.
Environmental Cleaning
Environmental Cleaning

- The organization must develop a written schedule for cleaning and decontamination at the work site based on the:
  - Location within the facility
  - Type of surface to be cleaned
  - Type of soil present
  - Tasks or procedures being performed

- Work surfaces must be decontaminated with an appropriate disinfectant:
  - After completion of procedures
  - When surfaces are contaminated
  - At the end of the work shift
Infectious Waste
Infectious Waste

- All Medical Waste generated will be considered potentially contaminated and safe handling techniques will be used regardless of content. However, due to the small degree of contamination, all waste is not considered Infectious Waste.
  - Waste with small amounts of body fluid will not be classified as Infectious Waste due to the low probability that exposure will cause disease.

- **Infectious Waste** is defined as waste generated in the diagnosis, treatment, immunization, research or production/testing of biologicals pertaining to:
  - Pathological Waste- waste consisting of tissues, body parts, body fluids that are removed during surgery, medical procedures and their containers.
  - Human blood waste also includes items such as dressings, drapes or other disposable items that are saturated or dripping with human blood or were saturated and are now dried.
  - Sharps- All discarded needles, blades, or sharp instruments whether or not contaminated with blood or body fluid, and broken glass which has been in contact with blood or body fluids. Also, vials, ampules or syringes are to be discarded.

- All **Infectious Waste** must be placed in closeable, leak-proof containers built to contain all contents during handling, storing, transporting or shipping and be appropriately labeled or color-coded.
Handling of Linen
Handling of Linen

- Laundry contaminated with blood or OPIM should be handled as little as possible.
- Use PPE when needed.
- Contaminated laundry will not be sorted or rinsed at location where used.
Hepatitis B Vaccination Requirements
Hepatitis B Vaccination Requirements

- OFC must make available, free of charge at a reasonable time and place, to all employees at risk of exposure within 10 working days of initial assignment unless:
  - employee has had the vaccination
  - antibody testing reveals immunity

- Must be provided even if employee initially declines but later decides to accept the vaccination.

- Employees who decline the vaccination must sign a declination form.

- Vaccination booster doses must be provided if recommended by the U.S. Public Health Service.
Biohazard Warning Labels
Biohazard Warning Labels

- Biohazardous warnings, either the internationally recognized biohazard symbol or bright orange-red coloring, will be used to alert persons of potential contamination of:
  - Container of contaminated waste.
  - Containers used to store, transport, or ship blood or other potentially infectious materials.
  - Refrigerators, freezers and other containers used to store, transport, or ship blood and/or other potentially infectious materials.
  - Sharps Containers.
OSHA’s Bloodborne Pathogens Standard prescribes safeguards to protect workers against the health hazards from exposure to blood and other potentially infectious materials, and to reduce their risk from this exposure.

Implementation of this standard not only will prevent hepatitis B cases, but also will significantly reduce the risk of workers contracting AIDS, Hepatitis C, or other bloodborne diseases.
Additional Resources

- If you have any questions or concerns regarding the Bloodborne Pathogen Program please contact any member of the Safety Committee:
  - Julie Morgan, PTA, CMCO
  - Kristina Kleist, MA
  - Sherri Kanzenbach, RT
  - Mary Brolsma, RN
  - Kyle Roers, PTA
  - Connie Philips, PT
  - Lisa Mueller, Appointment Desk
  - Dave Bentdahl, Maintenance