

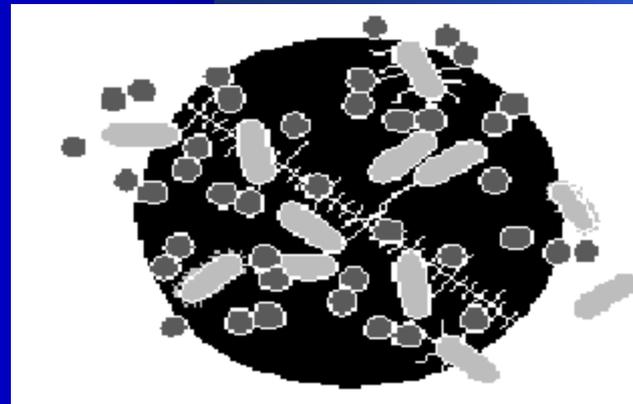
Bloodborne Pathogens

Introduction

- You are here because at some point in your job you may be exposed to blood and/or body fluids. Specific job codes of employees enrolled in the BBP are outlined in the Exposure Control Program.
- Training will consist of: different types of blood diseases, routes of exposure, what to do if you are exposed, how to clean up spills, and prevention.

What Are Bloodborne Pathogens?

Bloodborne pathogens are microorganisms such as viruses or bacteria that are carried in blood, internal body fluids and unfixed tissue that can cause disease in humans.



Human Immunodeficiency Virus (HIV)

- HIV—small but real hazard. Attacks the T4 cells which defend the body against infection. There is no vaccine or cure, however, an exposed person can be placed on Post-Exposure Prophylaxis (PEP), preferably within 1-2 hours of the exposure.
- Symptoms of HIV include depression, diarrhea, thrush (bad taste and white coating in mouth), weightloss, fatigue, nausea and vomiting.

Hepatitis B

- HBV—attacks the liver which is the organ that is needed to remove poisons that build up in the blood.
- Currently 1.25 million in the U.S. are affected.
- HBV is usually an acute disease (short term, 6 months or less).
- Some people will experience no symptoms when infected with HBV.
- Others will experience flu-like illness including jaundice, dark urine, extreme fatigue, anorexia, nausea, abdominal pain, and sometimes joint pain, rash, and fever.

Hepatitis B Vaccine

- There is no cure to HBV but there is a vaccine available free of charge at JHMI.
- The vaccine is a series of three shots: one immediately at the first visit, the second a month later, and the third 6 months after that. It is not required but is strongly recommended.
- The vaccine, if given in the proper intervals, is up to 95% effective and is effective for at least 15 years.
- The vaccine is safe for pregnant women or for women who are breastfeeding.
- Contact Occupational Health, 98 North Broadway, 410-955-6211 to schedule an appointment.

Hepatitis C

- HCV—a virus that causes the liver to get inflamed and swollen. HCV is usually a chronic disease (long term, more than 6 months).
- There is no immunization and no cure. Currently 4 million in the U.S. are affected.
- Not everybody with hepatitis C has symptoms.
- People who do have symptoms feel like they have the flu. This can include: feeling tired, feeling sick to your stomach, fever, poor appetite, stomach pain, diarrhea, muscle and joint pains, dark yellow urine, yellowish eyes and skin.

Routes of Exposure

- Parenteral—through the skin via punctures, open wounds, etc.
- Mucous Membranes—splash to the eyes, nose, mouth.
- Sexually
- Prenatal
- Cannot be exposed through casual contact!!

Prevention

- Standard Precautions: consider all patients and body fluids/blood to be infectious.
- Dispose of all materials with blood/body fluids into appropriate containers/sharps.
- Wear Personal Protective Equipment!! Gloves and eye/face protection (safety glasses, goggles, face shields).
- Use safety devices
- Handwashing is still the most effective means to prevent transmission.

Limitations of Engineering Controls

- Gloves—are not puncture resistant.
- Safety sharps—only work if the user activates the safety mechanism.
- Sharps Containers—can malfunction if employees dispose of items other than sharps in the container such as paper wrappers, gauze, and tape. User must lift the lid to assure disposal of sharp.

Personal Protective Equipment

- Gloves are to be worn for all procedures.
- Face shields/goggles are to be worn when there is a risk of a splash to the mucous membranes.
- All reusable items, such as goggles, are to be cleaned with a bleach and water solution.

What to do if exposed:

- Clean the area thoroughly.
- Report the incident to your supervisor/site coordinator. Follow the established plan at your site.

Biohazard Symbol

Communicates potential exposure

Use sparingly, explicitly

- Cultures, human blood and tissues
- Equipment (centrifuge, water bath, etc.)
- Storage areas (freezer, incubator, etc.)
- Door to laboratory



How to clean up spills:

- Wear gloves and eye/face protection.
- Wipe up the spill with disposable towels and discard in red bag.
- Pour bleach over the spill area and let sit for 10 minutes)
- Wipe up the bleach with disposable towels and discard in red bag.