



ANGELO STATE UNIVERSITY
Member, Texas Tech University System

Bloodborne Pathogen Safety Awareness Including information regarding MRSA

Presented by the Department of
Environmental Health, Safety & Risk
Management



Bloodborne Pathogens

Bloodborne Pathogens are microorganisms such as viruses or bacteria that are carried in blood and body fluids and can cause disease in humans.



Bloodborne Pathogens Include:

(but are not limited to)

- Hepatitis A, B & C
- Human Immunodeficiency Virus (HIV)
- Malaria
- Syphilis
- Brucellosis

Hepatitis B (HBV)

- HBV – attacks the liver which is the organ that is needed to remove poisons that build up in the blood.
- Currently 1.25 million people 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 to ASU faculty & staff exposed to potentially infectious material.
- The vaccine is a series of three shots
- The vaccine is up to 95% effective and is effective for at least 15 years.

Hepatitis C (HCV)

- HCV is a virus that causes the liver to get inflamed and swollen.
- HCV is usually considered 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.
- Those that do have symptoms, feel like they have the flu.



Bloodborne Pathogen 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

- Wear Personal Protective Equipment!
- All shared and reusable items, such as goggles & sports equipment are to be cleaned with a bleach and water solution.
- Hand washing is the most effective means to prevent transmission.
- If you are in an area where there is reasonable likelihood of exposure, never eat, drink, smoke, apply cosmetics or handle contact lenses.



What to do if exposed:

- Clean the area thoroughly.
- Report the incident to your supervisor.
- Follow the guidelines found in the ASU Exposure Control Plan.



Hand Washing

Hand washing is generally considered to be the most important measure in preventing the spread of infection.



Hand Washing Technique

- Wet your hands with warm, running water and apply liquid soap or use clean bar soap. Lather well.
- Rub your hands vigorously together for at least 15 to 20 seconds.
- Scrub all surfaces, including the backs of your hands, wrists, between your fingers and under your fingernails.
- Rinse well.
- Dry your hands with a clean or disposable towel.
- Use a towel to turn off the faucet.



Methicillin-Resistant Staphylococcus Aureus (MRSA)

In 1928, when penicillin was discovered, it was hailed as a “miracle drug”. It saved countless soldiers from the biggest wartime killer – infected wounds. But today, many of the most potent antibiotics in the world are no match for the drug resistant pathogens, like methicillin-resistant Staphylococcus aureus, or MRSA.

MRSA causes infections so virulent, they can turn deadly within days. These often life-threatening infections are increasing at an alarming rate, and our ammunition is running out.

We do know we can stop these superbugs from spreading and lower infection rates by arming ourselves with knowledge and practicing the basics of good hygiene.



The Problem of Antibiotic Resistance

- How bacteria adapt
- Resistant genes
- Bacteria proliferation



MRSA in the Community

- Most common Superbug
- Carried on skin, in nose
- How it enters body
- CA-MRSA



How is MRSA Spread?

- Skin to skin contact
- Contaminated objects
- Contaminated equipment
- Environmental surfaces
- Personal items



How Do You Know You're Infected?

- Pus-filled boils
- Pimples and rashes
- Abscesses that are red, swollen, painful and may have drainage
- Impetigo can be caused by MRSA
- Life-threatening illnesses



How are Infections Treated?

- Drainage of lesions
- Antibiotics
- Follow doctor's orders
- Take full course of antibiotics



Preventing Transmission of MRSA

- Hand hygiene
- Disinfect equipment
- Clean tools
- Clean environmental surfaces
- Disinfect restrooms