



# SHR Independent Contractor Blood-borne Pathogen Training

Revised June 2010

All Independent Contractors are required to attend initial and annual  
OSHA Training provided by the Military Treatment Facility

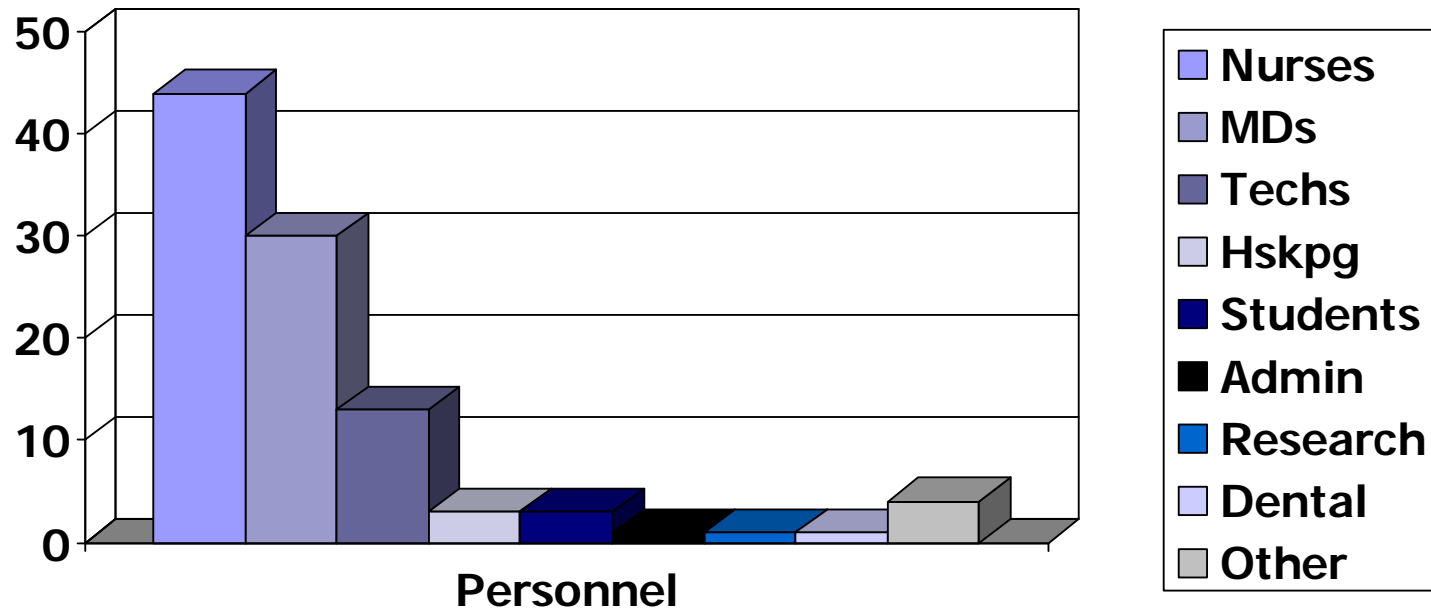


# Why Blood-Borne Pathogen Training? Protect Yourself!

- Between 600,000 and 800,000 healthcare workers are stuck by contaminated needles or other sharps annually in the U.S.
- Approximately 50% of all such injuries are reported
- Approximately 40,000 people in the US are infected with HIV annually

# Who is Exposed in the Hospital?

## Exposure Percentages



# Location of Injury

- 93.3% of injuries to hands
- 55.7% of injuries are to the non-dominant hand
- Rate of Percutaneous Injuries has declined since enactment of the OSHA Standard
- Injuries from contaminated sharps decreased by 51% from 1993 to 2001
  - Better education regarding risks
  - Increased training regarding the use of safety devices
  - Increased use of safety devices

# Hepatitis B

## Inflammation of the liver

- Flu-like symptoms
- Jaundice, enlarged liver, fever, and nausea
- 3-6 months before symptoms appear
- 300,000 people in the US infected annually
- Risk of infection from exposure for healthcare personnel is between 6% and 30%
- Vaccination available and considered 80-95% effective

# Hepatitis C

- Hepatitis strain
- Progresses to chronic hepatitis in many patients
- 4 million individuals currently infected in the U.S.
- No vaccine, immune globulin, or antiviral therapy is available
- Risk of infection from exposure after a needlestick is approximately 1.8%

# HIV

## Weakness of the immune system

- Inability to fight infection
- Fatal, no known cure or vaccine
- Between 35,000 and 45,000 people in the US are infected annually, 900,000 currently infected
- Can take years for symptoms to develop
- Risk of infection following exposure is between 0.3% (needlestick) and 0.1% (skin and mucous membrane)

# Modes of Transmission

- Blood
- Other Potentially Infectious Material (OPIM)
  - Semen
  - Cerebral spinal fluid
  - Synovial fluid
  - Amniotic fluid
  - Vaginal secretions
  - Pleural fluid
  - Peritoneal fluid
  - Saliva

# Methods of Exposure

- Sexual contact
- Sharing of hypodermic needles
- From mother to child at/before birth
- Accidental puncture from contaminated needles or other sharps
- Contact between broken or damaged skin and infected body fluids
- Contact between mucous membranes and infected body fluids



# **Avoiding Blood-Borne Pathogen Exposure**

- **Universal Precautions**
- **Personal Protective Equipment (PPE)**
- **Engineering Controls**
- **Work Practices**

# Avoiding BBP Exposures

## ■ Universal Precaution

Treat all blood and body fluids as if they are infectious, regardless of the perceived status of the source individual.

## ■ Use of Personal Protective Equipment (PPE)

Gloves

Eye and face protection

Gowns

## ■ Engineering Controls

- Avoid recapping needles
- Do not break or shear needles
- Move needles using mechanical devices
- Do not reuse disposable sharps
- Avoid needles if alternatives are available

# Avoiding Exposure

## □ Work Practices

- Hand-washing
- No eating, drinking, or smoking in the work place
- Do not apply cosmetics or lip balm in the work place
- Do not handle contact lenses in the work place
- Handle contaminated laundry as little as possible
- Dispose of Sharps in the appropriate containers (bio-hazardous)
- Broken glassware should be cleaned up quickly and carefully using mechanical means
- Never pipette or suction blood or body fluids by mouth
- All work surfaces should be cleaned and decontaminated after contact with blood or body fluids
- Dispose of all contaminated laundry in contained labeled bio-hazardous

# Hepatitis B Vaccine

HBV vaccine recommended for all individuals with routine exposure to bloodborne pathogens

- Vaccination is a 3-injection series
- Routine booster is recommended by the U.S. Public Health Service
- Vaccine has resulted in significant decrease in rate of infection for healthcare workers
- Most Military Treatment facilities require proof of vaccine

## Procedure Following BBP Exposure

- Seek immediate medical attention and evaluation
- Wash the exposed area
- Wash or flush eyes or mucous membranes with running water for at least 15 minutes
- Identify source and test source for HBV, HIV, and HCV
- Consider baseline blood collection of your blood for testing
- Post exposure prophylaxis when medically indicated according to U.S. Public Health Service recommendations

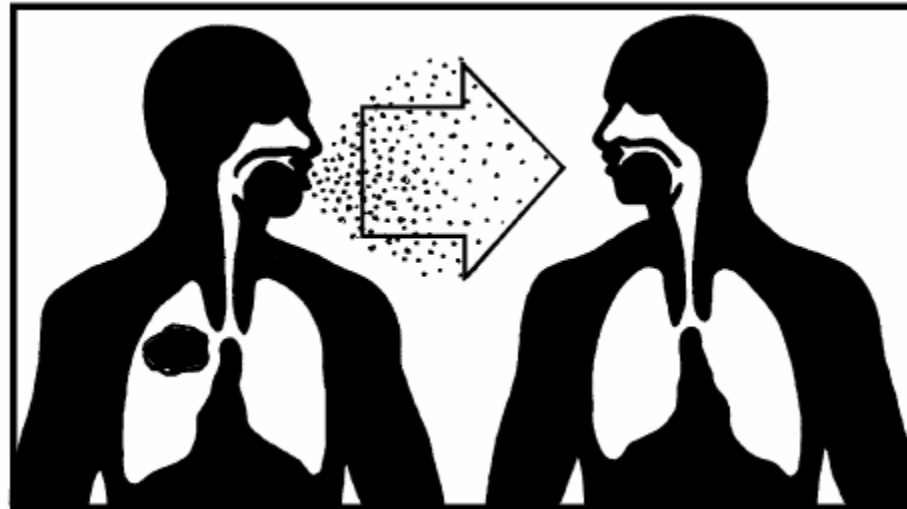
# Tuberculosis

- According to the Centers for Disease Control and Prevention (CDC) in 2005, nearly one-third of the world's population is infected with Tuberculosis (TB), which kills almost 2 million people per year.
- TB is now the second most common cause of death from infectious disease in the world after human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS). Drug-resistant strains of this deadly disease also contributed to the problem.
- Through a broad range of Federal and community initiatives, TB rates have declined steadily. In 2007, a total of 13,293 tuberculosis (TB) cases were reported in the United States; the TB rate declined 4.2% from 2006 to 4.4 cases per 100,000

# What is Tuberculosis?

- TB, or tuberculosis, is a disease caused by bacteria called *Mycobacterium tuberculosis*. The bacteria can attack any part of your body, but they usually attack the lungs. TB disease was once the leading cause of death in the United States.
- People who are infected with latent TB do not feel sick, do not have any symptoms, and cannot spread TB. But they may develop TB disease at some time in the future. People with TB disease can be treated and cured if they seek medical help.
- People who have latent TB infection but are not yet sick can take medicine to substantially reduce the risk that TB infection will progress to disease.

**TB is spread through the air from one person to another. The bacteria are put into the air when a person with TB disease of the lungs or throat coughs, sneezes, or during high risk procedures such as intubation or bronchoscopy. People nearby may breathe in these bacteria and become infected.**



# Difference Between Latent TB and TB Disease

## ■ Latent TB

- No Symptoms
- Do Not Feel Sick
- Cannot spread TB to others
- Usually has a Positive Skin Test
- Can Develop TB in the future
- Chest X-ray, sputum test normal

## TB Disease

- Bad Cough
- Pains in Chest
- Coughing up blood or sputum
- Weakness & Fatigue
- Weight loss, No appetite
- Chills, fever, night sweats
- May spread to others
- Positive skin test
- May have abnormal chest x-ray

# What if I have been vaccinated with BCG?

- **BCG is a vaccine for TB. This vaccine is not widely used in the United States, but it is often given to infants and small children in other countries where TB is common. BCG vaccine does not always protect people from TB.**
  
- **If you were vaccinated with BCG, you may have a positive reaction to a TB skin test. This reaction may be due to the BCG vaccine itself or to latent TB infection. But your positive reaction probably means that you have latent TB infection if:**
  - a. **you recently spent time with a person who has TB disease**
  - b. **you are from an area of the world where TB disease is very common (most countries in Latin America and the Caribbean, Africa, Asia, Eastern Europe, and Russia)**
  - c. **you spend time where TB is common (homeless shelters, drug-treatment centers, health care clinics ,jails, prisons)**