

INFECTION CONTROL

Infection is a serious concern for both patients and employees. Employees who are designated AT RISK of being exposed to blood borne pathogens such as human immunodeficiency virus (HIV) or tuberculosis (TB) must receive appropriate training to prevent exposure to blood borne pathogens. You are encouraged to supplement the information provided by viewing videos titled "Blood borne Pathogens: The Final Word" and "TB Update" which are available through the Medical Center library. If you have any questions about Infection Control, you may call Bernadette Arends -Taylor, RN, CIC, Beverly Gray, RN, CIC, Kathleen Hartless, RN, at extension 71572 or Sandra Leatherwood, RN, at extension 36393. You may also send them an e-mail message.

1. Infection Control Manual, located on the VANTHCS intranet, contains important policies and procedures for all health care providers. One essential infection control procedure, HAND HYGIENE, is defined as the MOST effective way of preventing cross-contamination and reducing hospital acquired infections. All personnel who have direct or indirect patient contact are expected to comply with hand hygiene procedures. Hand hygiene may be accomplished using either a waterless alcohol-based antiseptic (AVAGARD) or 2% chlorhexidine gluconate soap. Personnel should report any dermatitis involving their hands to Employee Health Unit. Artificial fingernails or nail jewelry must never be worn and nails must be no longer than 1/8th inch beyond the end of the nailbed.

2. Blood borne pathogens include, but are not limited to hepatitis B virus (HBV), human immunodeficiency virus (HIV), and hepatitis C virus (HCV). Death can result from blood borne pathogens or from chronic complications of infection. Blood borne pathogens may be present in blood or body fluids and can be transmitted, if infected blood or body fluids enter the blood system directly or through contact with mucous membranes (i.e., eyes, nose, mouth, vagina, rectum), open sores, cuts, abrasions, acne, burns, open blisters, etc. In health care settings, transmission is most likely to occur from needle stick injuries from hollow-bore needles contaminated with blood or body fluids.

3. The Exposure Control Plan (ECP) includes policies for Standard (Universal) Precautions, engineering controls, personal protective equipment (PPE), and work practices as well as recommendations to offer hepatitis B immunization to employees at risk for exposure to blood borne pathogens. It also contains policies for management of employees who have been exposed to blood or body fluids. A copy of requirements by the Occupational Health and Safety Administration (OSHA) called "29CFR Part 19 10.1030 - Occupation Exposure to Blood borne Pathogens; Final Rule" is included.

4. Supervisors and employees can determine their risk of occupational exposure to blood borne pathogens by the types of tasks they perform in which exposure to blood or body fluids can be reasonably anticipated. Such tasks include, but are not limited to, examining patients, drawing blood, starting IVs, giving medications using a needle, performing dressing changes, handling drainage tubes or catheters,

handling contaminated instruments, performing invasive procedures, performing laboratory procedures on specimens, and disposing of biohazardous waste. 5) Supervisors are responsible for training employees and monitoring compliance with policies and procedures for infection control. Personal protective equipment (PPE) must be readily available and used by employees in all instances where exposure to bloody substances is likely. Employees requiring respiratory protective devices to prevent exposure to TB must be fit-tested and trained in the correct fit and use of the designated mask or respirator. PPE must be removed after use and before leaving the work area.

6. **ENGINEERING CONTROLS** prevent or eliminate exposure by isolating or removing blood or body fluids from the work area or reducing the hazards of procedures. Examples include needle-less IV systems, needle disposal containers, laboratory bench shields and special ventilation for TB isolation rooms. **WORK PRACTICE CONTROLS** reduce the likelihood of exposure by the manner in which a task is performed, such as never recapping needles, and replacing needle disposal containers when 3/4 full. **PERSONAL PROTECTIVE EQUIPMENT (PPE)** are specialized clothing or equipment worn for protection against a hazard such as blood or body fluids. PPE include gloves, gowns, aprons, masks, goggles, and face shields.

7. A major component of the Exposure Control Plan is the use of **STANDARD PRECAUTIONS**. This includes hand washing and the use of personal protective equipment (PPE). Hand washing is the responsibility of **EVERY** Medical Center employee. Employees should wash their hands with soap before coming to and before leaving work, after using the bathroom, before and after eating, before and after each patient care procedure, after removing gloves, and after coughing, sneezing, or any facial/hair contact. In addition, hands must be washed immediately after contact with blood or other body substances.

8. **STANDARD PRECAUTIONS** include hand washing, the use of personal protective equipment (PPE) as needed and the safe use and disposal of infectious waste, sharp items, and needles. PPE (gloves, mask, goggles, and a gown or apron) must be used to protect employees when exposure to blood or body fluids is possible. Used needles must **NEVER** be recapped! All needles and disposable sharp items are to be discarded **IMMEDIATELY** in appropriate sharps containers.

9. Procedures must be performed carefully to minimize spraying, splashing, and aerosolizing blood or body fluids. Food or beverages may not be kept in refrigerators, freezers, or storage areas with blood or other potentially infectious materials. Therefore, activities such as eating, drinking, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas where blood or body fluids may be handled. This includes patient rooms and laboratories.

10. Only disposable items that are heavily saturated or dripping with blood/body fluids should be placed in red biohazard waste bags. All disposable needles and sharp instruments should be discarded in approved sharps containers. Sharps disposal containers should be changed when they are 3/4 full. No special precautions are

required for linen unless it is wet or dripping. To prevent leaking, wet or dripping linen should be put in a clear/green plastic bag before placing it into a linen bag.

11. Employees must be trained to clean spills of blood or body fluids. If the spill is small and contains no sharp items, employees should don personal protective equipment (PPE), then clean and disinfect the area immediately. Environmental Management Service (EMS) provides spill kits containing absorbent material and a pick-up scoop to safely collect needles or other sharp items for disposal in a sharps container. After blood/body fluid is removed, the area should be disinfected by soaking with an approved disinfectant such as Wex-Cide. The disinfectant should be allowed to air-dry. If the spill is large, EMS should be called.

12. In the event of an exposure to blood/body fluids such as a needle stick or splash to the eyes or mouth, an employee must IMMEDIATELY report to the Employee Health Unit or Urgent Care. If treatment is indicated to try to prevent HIV, it should be started within two hours following the exposure. Employees exposed to blood or body fluids, will be offered appropriate counseling, testing, treatment and follow-up based on the type of exposure and evaluation of the source patient's infectious status.

13. Procedures for exposure to blood or body fluids are in the Infection Control Manual. All human immunodeficiency virus (HIV) tests on patients or employees require informed consent, even if an exposure occurs. After an informed consent form for HIV testing is signed, the source patient and employee may have blood tests done. Employees should also be tested at specific intervals over the next several months to detect infection by blood borne pathogens. Tests are ordered by requesting the "Needle stick Protocol". Employee tests are not ordered in the computer and are given an anonymous code to protect confidentiality of results.

14. Biohazard signs, symbols or the color red are used to identify items or areas that may potentially expose employees to blood or body fluids. Areas such as laboratories must have a sign or symbol placed on entry doors. Refrigerators used to store blood or body fluids must also be labeled with a biohazard sign or symbol. Needle disposal containers and biohazardous waste must be color-coded or properly labeled.

15. Supervisors and employees can determine their risk of occupational exposure to tuberculosis (TB) by identifying the types of tasks that might reasonably expose them to TB. Such tasks include, but are not limited to, entering rooms of patients on Airborne Precautions, performing laboratory procedures on TB specimens, and having direct, prolonged contact with patients who have a high possibility of having TB. More detailed and specific information is available in the Infection Control Manual to assist Supervisors in determining the risk of occupational exposure to TB for their employees' job categories.

16. Tuberculosis (TB) germs are expelled into the air by people with active pulmonary TB disease, especially when they cough, sneeze, or laugh. People who inhale TB germs may become infected. If their immune system is strong, most infected people will not

develop active TB disease and will not spread TB. Skin tests with Purified Protein Derivative (PPD) are used to identify persons who have been infected with the TB germ. Infected people may benefit from medication to prevent them from developing active TB disease.

17. Symptoms of active tuberculosis (TB) disease include cough lasting longer than two weeks, weight loss, weakness, fever, night sweats and sometimes chest pain. Patients suspected of having active TB disease should be placed in airborne isolation and evaluated by Pulmonary Section. Persons who are more likely to be infected with TB include those who have a history of homelessness, incarceration, alcoholism, injecting drug use, human immunodeficiency virus (HIV) infection, and residence in longterm care facilities or in foreign countries with a high rate of TB.

18. The spread of tuberculosis (TB) germs can be prevented by early diagnosis, isolation, and effective treatment of persons with active TB disease. A health care worker's risk for exposure to TB is directly related to the duration, frequency, and closeness of contact with patients who have active TB that has not been adequately treated and who are not on airborne isolation precautions. Having a TB skin test does not cause infection with TB.

19. Tuberculosis (TB) germs are so tiny and lightweight, that they can remain in the air for long periods of time. Patients with this infection must be placed in airborne isolation with special ventilation and an AIRBORNE PRECAUTIONS sign must be placed on the door. The door should be kept closed and all staff must wear a TB mask (N-95 mask) whenever they enter the room. If the patient must visit another department, that department should be notified in advance, and the patient must wear a face mask whenever they are outside the isolation room.

20. Employers are required to evaluate and consider providing safer medical devices, such as sharps with protective features, that are effective in minimizing the risk of sharp injury or exposure to blood or body fluids. Employees are encouraged to suggest new medical devices that would help protect them from blood borne pathogens. A log of all needle stick injuries will be maintained to help identify devices that may contribute to the risk of injury.