

General Laboratory Safety

The purpose of this operating instruction is to define general laboratory safety procedures and practices within the laboratory. This operating instruction is applicable to all laboratory personnel. It is the responsibility of all personnel to follow these guidelines. This policy serves as a brief safety outline and each individual deployment must be assessed and safety procedures changed as required.

1. **Eating, Drinking, Application of Cosmetics.** Eating, drinking and applying cosmetics or contact lenses is strictly prohibited in the laboratory. Do not store foods in refrigerators containing either reagents or biologicals.
2. **Smoking.** Smoking anywhere within the medical facility is prohibited and is only allowed in designated areas outside the facility.
3. **Mouth pipetting.** Mouth pipetting is prohibited. There are pipetting aids available for every task.
4. **Fire Prevention and Control.** Get to know the AFTH's fire evacuation plan. All personnel will know the location of the fire alarms, fire blankets and extinguishers in their work area, and their proper use. If the fire can not be controlled with the fire extinguisher, notify the fire department and proceed with evacuation. Walk DO NOT RUN to the nearest exit. Drawing room personnel will instruct patients on evacuation procedures. Shut all doors after checking the room to ensure nobody is inside.

5. Electrical Safety

- 5.1. Use of electrical extension cords will be minimized. If used they must be grounded and (UL) Underwriter's Laboratory tested. Equipment must have UL Hospital grade connectors.
- 5.2. Multiple adapters are prohibited unless they are combined as a surge protector and used for computer equipment. Insure medical maintenance performs an annual ground check on all outlets and all laboratory instruments/appliance are adequately grounded and checked for current leakage.
- 5.3. Do not work or attempt to repair any instrument while plugged in. Do not operate electrical equipment while standing on a wet floor or with one hand touching a sink.
- 5.4. If water or any other liquid is spilled on or near an instrument, cease operation at once. If it is safe to do so, turn off the instrument and unplug it.

6. Chemical Toxin Hazard Control

- 6.1. Several chemicals utilized in the laboratory are hazardous. These chemicals are shipped to the deployment area on the "Hazardous Chemical" pallet. Hazardous chemicals utilized in the laboratory include but are not limited to: Gram Stain decolorizer, (acetone and methyl alcohol)

“Flammable,” Blood Differential Quick Stain (methyl alcohol - preservative) “Flammable,” and 10 % Formalin or Formaldehyde “Carcinogen.”

6.2. Keep the amount of hazardous chemicals in the lab to a minimum. If possible, store flammable chemicals in a Flame Cabinet. Utilize appropriate protective equipment when pouring formalin. The OIC/NCOIC, Laboratory must initiate appropriate safety precautions (i.e., chemical inventory, material safety data sheets, chemical spill control, and occupational exposure) in respect to hazardous chemicals depending on the length of deployment.

7. Safety Showers and Eyewashes.

7.1. Safety showers may not be available in a deployed area. However, if an employee is exposed to a hazardous chemical, rinse the area off with copious amounts of water. Clothing is removed to prevent further damage to the body.

7.2. The eyewash is used to wash any chemical that may have come in contact with your eyes. In the event of a chemical splash to the eyes, rinse with copious amounts of water. Once chemicals have been rinsed out, seek medical attention.

8. Infection Control.

8.1. Utilize “Standard Precautions” when working with blood, body fluids or moist mucous membrane surfaces. Standard precautions include:

8.1.1. Barrier Precautions: Technicians will wear gloves and lab coats when coming in contact with any body fluids including the performance of venipunctures and capillary collections. Mask and protective eye wear (safety goggles, face shields) are worn during procedures that are likely to generate aerosols.

8.1.2. Clean blood/body fluid spills with 10% bleach. Dispose of in infectious trash.

8.1.3. Dispose of sharps in a puncture-proof biohazard needle container. Never recap contaminated needles. If you have to recap needles, utilize the “one-handed” resheathing method.

8.2. Follow the EMEDS AFTH’s appropriate “Transmission-Based” isolation precautions as appropriate (when working with patients who may have highly contagious diseases).

8.3 All blood/body fluids or items contaminated with blood/body fluids (infectious waste) will be disposed of in biohazard bags and disposed of per Base Civil Engineering protocol. Disinfect counters and equipment daily utilizing a 10% bleach solution.

8.4. Wash your hands as often as possible. Before coming on and off duty, before and after breaks, between glove changes, and whenever hands become obviously soiled.

8.5. Report sharps mucous membrane exposures to your supervisor. Seek immediate medical attention.

9. **Reporting Serious Laboratory Accidents.** Report any injuries or illnesses that occur on the job to your immediate supervisor. Receive prompt medical evaluation and/or treatment. Notify the appropriate public health official.

10. **Glassware.** Discard broken or chipped glassware. Stoppers on glass tubing should not be removed by force. Before washing, decontaminate glassware that has been exposed to infectious agents. Dispose of broken or discarded pieces in a specially marked separate container. Hot glass should be handled with heat retardant gloves.

11. **Good Housekeeping.** Do not allow trash to accumulate in any area. Trash should be disposed of daily. Keep laboratory sections organized, reduced clutter decreases the chances of potential fire hazards (i.e. boxes under counters, record storage in the main laboratory, etc.).

12. **Centrifuges.** Centrifuges regularly used in clinical laboratories are relatively safe to operate. All centrifuges should have lockable lids that should not be opened while the rotor is moving. In normal use, when there is no tube breakage, airborne particles (aerosol or droplets) are not generated.