**SUBJECT: Infection Control In The Laboratory**

1. **Policy:**
	1. A number of basic policies will be followed to ensure that minimal exposure to possible infections exists while on hospital premises. Tasks are assessed to determine whether sprays or splashes are anticipated from blood or body fluid. If the risk is low, only gloves are required. For moderate risk: fluid-resistant lab coats and gloves are required. For high risk: face protection, fluid-resistant lab coats and gloves are required.
		1. Specimen collection and distribution to the technical areas are low risk tasks.
		2. All technical areas are considered moderate risk.
2. **Items / Activities not allowed in work areas of the lab:**
	1. Food and drink may be stored only in refrigerators labeled "FOOD AND DRINK ONLY".
	2. DO NOT store food in refrigerators labeled with BIOHAZARD labels.
	3. DO NOT eat, drink, chew gum, apply cosmetics (includes lip balm) or handle contact lenses in any laboratory area other than those designated as clean areas. (OSHA 29CFR1910.1450)
	4. Designated clean areas are the laboratory offices, the LIS & storeroom, and the lab restrooms.
	5. Designated clean areas are to be properly maintained. Remove and clean glassware, coffee mugs, etc. after use. Do not leave dirty dishes in the area for someone else to clean up.
	6. DO NOT use cell phones or other personal electronic devices in work areas.
3. **Hand Hygiene Indications with Soap and Water**
	1. When hands are visibly soiled
	2. Before eating or preparing food
	3. After using the restroom
	4. When exposure to a spore-forming organism such as Clostridium difficile or other potentially infectious diarrhea (suspected or confirmed).
4. **Hand Hygiene Hygiene Indication Using Alcohol-Based Hand Rubs**
	1. Before and after direct contact with patients or the environment.
	2. Before applying gloves
	3. After removing gloves
5. **Lab Coats:**
	1. Fluid-resistant Lab coats must be worn in the laboratory when there is a reasonable possibility of contaminating clothing with biohazard or caustic material.
		1. Phlebotomy specimen collection does not require a fluid-resistant Lab coats as personal protective equipment per OSHA clarification in 2011. They are available if necessary.
	2. Lab coats that are worn as personal protective equipment must be full length with long sleeves.
	3. Lab coats must be closed in the front during any procedure where contact with body fluid is likely, such as specimen analysis.
	4. Lab coats, which are worn as personal protective equipment, are provided & laundered by the hospital in adequate number and size for all personnel and are not to be taken home.
		1. Lab coats, which are NOT worn as personal protective equipment, may be treated as any other employee uniform.
	5. Lab coats that have been used as personal protective equipment are to be placed in the designated container in the lab for laundering. They may not be worn while eating or drinking and contaminated coats may not be removed from the hospital by lab employees. There are coat hooks provided in the lab to temporarily hang used lab coats while not in use. These hooks are considered “dirty”, so nothing except lab coats is to be placed there.
	6. Lab coats, which are worn as personal protective equipment, must be removed, or changed when leaving the laboratory for any purpose that would not require personal protective equipment, such as eating or meetings.
	7. Disposable, fluid resistant lab coats are acceptable.
	8. Reusable, fluid-resistant, Lab coats must be disposed of when their quality control metric has been met according to the number of times the coat has been washed, monitored by Miller’s Laundry.
		1. Washes will be documented by the commercial laundry staff by use of barcodes on the coats. After maximum washes are completed, they will be removed from service. Tracking is maintained by vendor.
	9. Any issues or questions regarding lab coats should be directed to the Director of Materials Management (ext. 3559)
6. **Gloves:**
	1. Gloves must be worn during any procedure that the exposure to body fluids is likely. All phlebotomy and testing procedures are included, as well as handling potentially contaminated laundry and other items.
	2. All gloves used by lab personnel will be Latex free.
	3. Dispose of gloves by removing them from inside out and place used gloves in the regular trash.
		1. Dispose in biohazard trash if visibly bloody.
7. **Masks, goggles, and/or face shields:**
	1. Available for anytime there is a likelihood of an employee being splashed by blood or another contaminated substance.
8. **Disposal of Medical Waste:**
	1. All sharps and syringes are to be disposed of in a sharps container.
	2. All containers that contain blood or anything that may be contaminated with blood, will be disposed of in red hazardous materials containers.
	3. All Waste should be disposed of as designated by Hospital standards. Refer to “Waste Disposal Quick Reference.” Stericycle containers are present throughout the lab and in draw areas.
9. **Needle Safety:**
	1. **DO NOT RECAP NEEDLES (Use only safety needles)**
	2. DO NOT DISPOSE OF NEEDLES IN ANY TRASH THAT IS NOT A DESIGNATED SHARPS CONTAINER.
	3. Needles should not be removed from syringes or blood tube holders, and they should not be bent or sheared.
	4. Do not attach a needle to an adapter or syringe prior to being in the patient’s presence.
	5. Do not reuse any needle that has previously pierced the skin, not even on the same patient.
	6. All needle holders are disposed of after each use in a designated sharps container.
	7. Do not send any specimen container to the lab, with the needle still attached.
10. **Tourniquets:**
	1. Dispose of the tourniquet after a single use (in the regular trash unless visibly bloody).
	2. All tourniquets used by lab personnel will be Latex free.
11. **Pipetting:**
	1. All pipetting with serological pipets is to be done using a pipet bulb, **NEVER PIPET BY MOUTH**.
	2. Disposable pipettes should be used whenever possible. MLA pipettes are used for small volumes with disposable tips.
	3. Disposable devices must be discarded after use into a designated sharp container.
12. **Standard Precautions:**
	1. Standard (Universal) precautions must be always followed while collecting or analyzing specimens.
13. **Encourage The Use Of The Following, Whenever Appropriate:**
	1. Primary tube sampling when available, such as in Hematology and Chemistry
		1. Diff Safe - discarded after use into a designated sharps container.
		2. Ensure all tubes are properly capped during centrifugation to prevent aerosols.
		3. Blood Bank hematype segment device
		4. Ensure proper biohazard disposal.
		5. Use only Safety needles.
		6. Never insert a needle through the stopper of a blood collection tube to transfer blood from a syringe, use the safety female adapter.
		7. Plastic blood collection tubes and aliquot tubes
14. **Aerosol Containment:**
	1. Face Masks / Shields should be used whenever there is a moderate risk of aerosol exposure. A Biological Safety Cabinet is also available for any procedure deemed appropriate.
	2. All centrifuges must have lids to prevent aerosols.
15. **Processing of suspected AFB specimens:**
	1. Specimens received in screw-topped container with only AFB culture ordered:
		1. Do not open the container, send the original container to the reference lab for processing.
	2. Specimens received in Luken’s suction trap containers or a container with AFB & other tests ordered:
		1. Transfer of suspected AFB specimens to appropriate containers for referral will be done using the Biological Safety Cabinet (Class II, type A) located in microbiology.
16. **Patients In Isolation:**
	1. “Contact” isolation - all disposable phlebotomy items that come in contact with the patient are to be properly disposed of prior to leaving the patient’s isolation room.
		1. Collection containers (tubes, blood culture bottles, etc) that may carry contamination on the outside, must be placed in a sealed plastic bag. Use care not to contaminate the outside of the bag with gloves that have touched the patients. The bag is delivered to the appropriate work area and serves as a sign to handle that specimen container as if it is contaminated.
	2. Airborne isolation:
		1. Requires the use of a negative ventilation room.
		2. NO disposal of phlebotomy items is necessary.
		3. Staff will wear PAPR (Powered Air purifying Respirator) in the room.
		4. No fit testing is required for PAPR.
	3. Droplet isolation:
		1. requires wearing surgical mask but no disposing of any equipment.
17. **Decontamination Of Equipment and Work Surfaces:**
	1. Every lab work area counter should be decontaminated, each shift of use. Bleach wipes or germicidal wipes that are acceptable disinfectants can be used as necessary. For areas needing better coverage, spray a thin coat of a “1 minute kill” disinfectant, making sure the disinfectant covers the entire surface. Allow the disinfectant to remain at least 1 minute or until air-dried, then wipe off with a paper towel or similar material. Document décontamination on the Misc. Cleaning schedule log.
	2. Patient care areas (draw room, Celina ProHealth) - housekeeping is responsible for the daily cleaning of the counters and furniture. However, if any surface is visibly contaminated, Bleach wipes or germicidal wipes that are acceptable disinfectants can be used as necessary. A thin coat of a “1 minute kill” disinfectant can be used, making sure the liquid covers the entire surface. Allow the disinfectant to remain at least 1minute or until air-dried, then wipe off with a paper towel or similar material. Document décontamination on Misc. Cleaning schedule log.
18. **Decontamination Of Spilled Blood Or Body Fluid:**
	1. Wear gloves, lab coat when handling items soiled with blood or body fluids.
	2. If the spill contains broken glass, these objects should be removed and discarded without contact with the hands (cardboard works well for this). Dispose of broken glass in an appropriate biohazard sharps container.
	3. Absorb the spill with paper towels, then place the towels in the biohazard container.
	4. Once the bulk of the liquid is absorbed, decontaminate the area following the above procedure.
	5. If the affected area is the floor, ensure the area is dry, to avoid slipping.
19. **Decontamination Of Blood Collection Trays:**
	1. As needed, clean visually contaminated surface areas with disinfectant.
	2. Periodically, disassemble the entire tray and clean with disinfectant.
	3. Trays must be free of anything on the outside that would obstruct the decontamination of the surface.
20. **Decontamination of Keyboard covers:**
	1. Clean keyboard covers with alcohol towelette’s as needed (recommended weekly)
	2. Disinfect keyboard covers with germicidal towelettes when visibly contaminated with blood or body fluids.
	3. Document cleaning on the Misc Cleaning Log
21. **Decontamination of Handhelds:**
	1. Clean handheld with water moistened soft cloth quarterly or as needed.
	2. Visual contamination with blood or body fluids requires disinfection with germicidal towelettes. Caution should be used when cleaning, as bleach/alcohol will cloud the display screen.
	3. Document cleaning on the Phlebotomy Cleaning Log
22. **Decontamination of Biosafety Cabinet:**

25.1 Cleaning, the cabinet is disinfected each shift of use with 70% alcohol, or alcohol wipes. Document on Micro daily cleaning log.

25.2 Before and after performing NAAT assays (ie. C.difficile amplified), the cabinet should be cleaned with 10% bleach, followed by molecular grade water. Document cleaning on the Micro daily cleaning log.

25.3 Monthly, the cabinet is shut off, and thoroughly cleaned using 70% alcohol. Document on the Microbiology Miscellaneous Maintenance and cleaning log.

1. **Documentation of Safety Training:**
	1. Lab safety training should be done within the first month of hire and a refresher will be given annually at a scheduled Lab unit meeting. Anyone not attending this in-service must contact the lab safety officer individually for their safety competency documentation. MTS documents may also be used along with I- Learns and Net learning modules.
	2. Lab safety training documentation will be kept by the lab manager for three years.

Additional Safety education will be included with each Lab unit meeting.

**Policy Approved:**

**Patrick Feasel, MD**

**Laboratory Medical Director**

**Date: 5.8.24**

**Policy Reviewed:**

**Thomas Geis, MT (ASCP)**

**Laboratory Manager**

**Date: 5.7.24**