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Laboratory Infection Control

Document Type: Policy

I. PURPOSE AND OBJECTIVE:

A. All specimens should be considered potentially infectious and handled with care. In order to minimize the risk of disease transmission, the following guidance has been developed. Strict adherence must be paid to the Isolation Practices. The Standard Precautions policy emphasizes the need for health care workers to consider all patients as potentially infectious with blood-borne pathogens and to adhere to infection control precautions aimed at minimizing exposure to blood and body fluids of all patients.

II. POLICY STATEMENT:

Corewell Health laboratory personnel will adhere to Corewell Health infection control policies and principles.

III. GENERAL INFORMATION:

A. **Personnel**

1. Personnel shall be trained in the requirements of Standard Precautions.
2. Personnel shall be instructed in good hand washing technique. The Hand Hygiene policy details the hand hygiene expectations. Hands must be washed before and after patient contact, prior to eating, drinking, upon glove removal, and whenever contamination occurs while handling patient specimens. All personnel should wash their hands upon completion of laboratory activities, removal of protective clothing, and before leaving the laboratory. Hand sanitizer may be used if hands are not visibly soiled.
3. Smoking, vaping, eating, gum chewing, drinking, application of cosmetics or lip balm, manipulation of contact lenses and mouth pipetting are not permitted in the laboratory area.
4. Food must be stored only in refrigerators designated for that purpose. Laboratory apparatus shall not be used for the preparation or serving of food or drink.
5. Pencils, pens, etc., should be kept away from the mouth at all times.
6. Personnel shall adhere to the dress code in effect in their area of assignment. Laboratory coats, aprons, gowns, gloves, and masks should be worn according to the requirements of Standard Precautions. Gloves must be worn whenever the possibility of direct exposure to body fluids or secretions exists. Wash hands after removing gloves. Personal protective equipment (PPE) must be

removed when leaving the laboratory. Gloves and other PPE are not to be worn out of the laboratories into restrooms, elevators, stairwells, or hallways.

7. Employees with draining skin lesions or other evidence of an infectious process shall report the condition to their manager or supervisor with possible referral to Employee Health Services for evaluation.
8. In the event that a staff member is exposed to a communicable disease, they should report this promptly to a manager or supervisor. Follow-up shall be conducted according to the hospital's Employee Health Guidelines (See Management of Healthcare Personnel (HCP) Exposed to Communicable Disease and Bloodborne Pathogens Exposure Control Plan).
9. All new personnel shall be tested for immunity to rubella, rubeola, and varicella. Refer to Team Member Screening, Selection and Hiring.
10. The hepatitis B vaccine shall be offered to all susceptible, at-risk, personnel. The vaccine is administered by Employee Health Services at no cost. Should an employee be exposed, refer to the Bloodborne Pathogens Exposure Control Plan for post-exposure procedures.
11. At the time of employment or upon application for staff privileges, all health care personnel (HCP) shall receive a tuberculin skin test (TST) or immune gamma release assay (IGRA) unless a previously positive test can be documented. Persons with a documented history of positive TST or IGRA do not need additional TST or serologic testing for latent infection.
    a. Health care personnel deemed to be high-risk for TB will have annual testing.
        i. High risk groups in need of annual testing include microbiology personnel who process specimens or work in a BSL-3 laboratory, anatomic pathology personnel who perform frozen sections/maintain frozen section suites, cytology personnel as directed by lab leadership, bronchoscopy suite personnel, and respiratory therapists.
    b. Employees potentially exposed to TB patients or specimens must wear an N-95 mask and must be fitted for the N-95 mask on the predetermined schedule.
    c. Refer to Tuberculosis (TB) Control Plan for additional information on TB testing and precautions.

B. **Specimen Collection and Handling**

1. All specimens are assumed to contain pathogens and should be handled with care, according to the Standard Precautions.
2. Gloves must be worn when handling blood and all other types of specimens including body fluids, excretions, secretions, as well as soiled items, surfaces, materials, and objects contaminated by them. Contact with doorknobs, tests slips, etc., should be avoided while wearing gloves. Gloves shall also be worn for routine phlebotomy. In those areas of the laboratory in which gloves are routinely worn, all telephones and computer keyboards must be considered contaminated. Gloves do not need to be worn when transporting specimens in bags or other types of sealed containers.
3. Handle needles with care. Do not bare a needle point until you are ready to use it. As soon as you have finished using the needle, activate the needle safety device and dispose of it immediately into an approved sharps container. Never recap, purposefully bend or break a needle, remove a needle from a disposable syringe, or other manual manipulations of needles.
4. Gowns or aprons and face protection shall be worn during procedures that are likely to generate splashes of blood or other body fluids.

5. All specimens of blood and body fluids are to be put in a well-constructed container with biohazard labeling and a secure lid to prevent leaking during transport. Care should be taken when collecting each specimen to avoid contaminating the outside of the container. When not in use, specimens should be kept stoppered or covered.
6. Blood or other body fluids contaminating the outside of a collection tube should be wiped off with 10% bleach (1:10 dilution of the commercial product) or other antibacterial cleaning agent.
7. No mouth pipetting of specimens or reagents is allowed. Mechanical pipetting devices must be used for the manipulation of all liquids.
8. Quality control products and biological reagents prepared from human or animal sources should be handled with the same precautions applied to patient specimens.
9. Specimens should be transferred to analyzer cups or other tubes with transfer pipets and not by pouring. This must be done using a safety shield or mask and gloves.
10. Aspirating tubes for automatic sampling equipment should be wiped with tissues and not with fingertips. Tissue may be discarded into the regular trash.
11. To prevent dispersing aerosols, vacutainer stoppers should be removed with a twisting motion while using face protection. Stoppers should be discarded into biohazard bags for disposal.
12. All procedures and manipulation of infectious material should be performed in order to minimize the creation of droplets and aerosols. Procedures that have a high potential for creating aerosols or infectious droplets include centrifuging, blending, sonicating, vigorous mixing, and harvesting infected tissues. Face protection should be worn when carrying out these procedures. Biological safety cabinets (Class I or II) should be used whenever procedures are conducted that have a high potential for generating droplets.
13. Blood samples should be centrifuged with stoppers in place. Centrifuge safety cups are recommended for centrifugation of blood or other body fluids. Centrifuge lids should not be opened until the rotor has fully stopped.
14. Scientific equipment that has been contaminated with blood or other body fluids must be decontaminated and cleaned before being repaired in the laboratory or transported to the manufacturer. Decontamination can be done using 10% bleach or other hospital-approved disinfectant. If this is not possible, the equipment must be tagged with a biohazard label and the location of the contamination identified.
15. Gloves must be changed when damaged or visibly soiled and hands washed after glove removal. All persons must wash their hands after completing laboratory activities and should remove protective clothing before leaving the laboratory.
16. For handling tissues from patients suspected of having a prion disease, refer to Handling Anatomic Pathology Specimens and Autopsies with Potential Prion Disease or Transmissible Spongiform Encephalopathies (TSE)-Creutzfedlt Jakob Disease (CJD).

IV. PROCEDURE:

A. **Cleaning of Work Areas**

1. Areas are kept neat and clean. Reagents, chemicals, or pieces of equipment are to be returned to their proper places of storage after use. Personnel should clean and decontaminate their workstations as needed during their shift and at the end of the shift.

2. Laboratory counter tops exposed to specimens or specimen containers will be washed at least daily with one of the following disinfectants.
    - Wexide
    - 10% bleach
    - 70% isopropyl alcohol
    - Hospital-approved wipe
    - Any other approved disinfecting agent
3. Spilled specimens should be cleaned up immediately. Blood/body fluid spills should be cleaned up with one of the above preparations.
4. Reusable supplies (glassware, etc.) should be thoroughly cleaned and soaked in a disinfectant or autoclaved prior to reuse.
5. Environmental Surface Decontamination. Refer to the Laboratory Spill Response procedure.

B. **Management of Waste**

1. All waste must be discarded in compliance with all applicable federal state and local legislation and in accordance with the Management and Disposal of Infectious Waste & Sharps.
2. Cultures and stocks of infectious agents, associated biologicals, and blood specimens are placed in leak-proof Biohazard bags, closed, and placed into leak-proof, puncture-resistant regulated waste bins that are closed for transport when full.
3. Body fluid specimens such as urine are flushed down a sanitary sewer.
4. Other body fluids may be flushed down a sanitary sewer or sealed in a leak-proof container and placed in a leak-proof, puncture-resistant regulated waste bin that is closed for transport when full.
5. Body fluid specimens may be decontaminated and solidified with a product approved by the State of Michigan for this purpose, and discarded in the regular trash.
6. Pathological waste, such as human tissues, organs, products of conception, body parts and body fluids removed by medical procedure and not fixed in formaldehyde refer to Management and Disposal of Infectious Waste & Sharps.
7. Glassware that may break and cause a puncture, such as slides, cover slips, pipettes, etc., must be placed in a closeable, leak-proof, puncture-resistant container that is closed for transport.
8. Use of needles and syringes should be limited to situations in which there is no alternative, and the recommendations for preventing injuries with needles outlined under Standard Precautions are to be followed. Sharps with engineered sharps-injury protections and needle-less systems must be used.
9. Use of disposable needles and syringes is preferred. Newly available medical devices that minimize occupational exposure and reduce risk should be evaluated regularly and documented annually.
10. Used needles must be properly discarded into special puncture-resistant biohazard containers provided. Used needles should not be recapped, purposefully bent, broken, removed from the disposable syringe or in any way manually manipulated.
11. Contaminated materials used in laboratory tests must be decontaminated before reprocessing, or be placed in bags and disposed of in accordance with Management and Disposal of Infectious Waste & Sharps. Paper, gauze, etc. with dried blood may be discarded into regular trash.

C. **Patients in Isolation**

Laboratory workers having contact with patients in isolation should follow the appropriate precautions, as

outlined in Isolation Practices.

Attachments

No Attachments

Approval Signatures

Step Description	Approver	Date
CLIA Site Licensed Medical Directors	Muhammad Arshad: Chief, Pathology	4/11/2024
CLIA Site Licensed Medical Directors	Subhashree Mallika Krishnan: Staff Physician	3/26/2024
CLIA Site Licensed Medical Directors	Hassan Kanaan: OUWB Clinical Faculty	3/25/2024
CLIA Site Licensed Medical Directors	Jeremy Powers: Chief, Pathology	3/22/2024
CLIA Site Licensed Medical Directors	Ann Marie Blenc: System Med Dir, Hematopath	3/20/2024
CLIA Site Licensed Medical Directors	Masood Siddiqui: Staff Pathologist	3/19/2024
CLIA Site Licensed Medical Directors	Kurt Bernacki: System Med Dir, Surgical Path	3/19/2024
CLIA Site Licensed Medical Directors	Ryan Johnson: OUWB Clinical Faculty	3/19/2024
CLIA Site Licensed Medical Directors	John Pui: Chief, Pathology	3/19/2024
Policy and Forms Steering Committee Approval (if needed)	Christopher Ferguson: Mgr, Laboratory	3/19/2024
	Sarah Britton: VP, Laboratory Svcs	3/19/2024
Operations Directors	Amy Knaus: Dir, Lab Operations C	3/6/2024
Operations Directors	Elzbieta Wystepek: Dir, Lab Operations B	3/5/2024
Operations Directors	Brittnie Berger: Dir Sr, Lab Operations	3/5/2024
Operations Directors	Joan Wehby: Dir, Lab Operations C	3/5/2024
Operations Directors	Christopher Ferguson: Mgr, Laboratory	3/4/2024
	Christopher Ferguson: Mgr, Laboratory	3/4/2024

Applicability

Dearborn, Farmington Hills, Grosse Pointe, Royal Oak, Taylor, Trenton, Troy, Wayne