Status **Active** PolicyStat ID **14574051**

Beaumont

Origination	3/24/2021
Last Approved	1/8/2024
Effective	1/8/2024
Last Revised	1/8/2024
Next Review	1/7/2026

Document Contact	Christopher Ferguson: Mgr, Laboratory
Area	Laboratory-Safety
Applicability	All Beaumont Hospitals

Laboratory Personal Protective Measures

Document Type: Policy

I. PURPOSE AND OBJECTIVE:

To outline general Personal Protective Equipment (PPE) requirements for laboratory staff. For additional information, see Personal Protective Equipment - MIOSHA, Standard Precautions,Bloodborne Pathogens Exposure Control Plan Laboratory Infection Control, Isolation Practices and specific PPE details that may be included in laboratory section procedures.

II. POLICY STATEMENT:

All personnel who enter a laboratory and engage in activities requiring protective measures are required to comply with the following precautions. This includes all laboratory staff, medical staff, students/residents/fellows, and any vendor service or sales representative.

III. GENERAL INFORMATION:

A. **Closed Specimens**

1. Because of the unpredictable nature of specimen collection, the outside of a specimen container is likely to be contaminated, even when blood is not visible.
2. Wear gloves when handling a specimen, whether open or closed.
3. A specimen container which is visibly contaminated with blood, body fluids, or other tissues: Clean with fresh 10% bleach (made daily) or other hospital-approved agent. Do this at the time of collection or upon receipt in the laboratory.
4. Bagged specimens may be handled without gloves, face shields or gowns.
5. Closed specimens may be transported from lab to lab or within a laboratory without

being bagged, but gloves must be worn. Racks of open specimens must be bagged or covered to prevent splashing or aerosolization when transporting, even a short distance.

B. **Protective Clothing and Devices**

1. **Lab Coats**

a. All employees engaged in testing activities, including the opening and handling of specimens, must wear fluid barrier gowns/lab coats. It is not required to wear a gown/lab coat when performing phlebotomy or other non-testing activities.

b. Lab coats must be impervious to fluids and no shorter than mid-thigh in length. Lab coats may be worn only covering down to the hips in some laboratory areas (i.e. Anatomic Pathology). Aprons do not protect the arms and are not acceptable to be used as PPE.

c. Lab coats worn within the laboratory are NOT to be worn in patient care areas. If an employee is participating in a procedure within a patient care area, a separate (clean) Lab coat must be worn. Store “lab” coats and “patient care” coats separately.

d. Proper wearing of lab coats:

i. Cover the wrists with the cuffs of the sleeves

ii. Fasten collar

e. Remove lab coat prior to exiting the laboratory. Lab coats are NOT to be worn to bathrooms, break rooms, cafeteria, etc. It is acceptable to leave a gown/lab coat on if traveling to a different section of the laboratory within the same area.

f. Store lab coats within the laboratory. Do NOT store in personal lockers or within unapproved drawers/cabinets within the laboratory.

g. Change lab coats when visibly soiled, or, at least, once per week.

2. **Gloves**

a. Select the appropriate type of glove for the task being performed.

i. Nitrile or vinyl: Appropriate for handling specimens of blood or other body fluids and tissues, dry chemicals and dilute aqueous solutions.

ii. Chemical resistant neoprene: Appropriate for handling concentrated acids, bases and most organic solvents.

iii. Household rubber: Appropriate for use with strong cleaners or detergents including bleach solutions for decontaminating bench tops.

b. Properly fitting gloves should be used. They should not be loose or extend beyond the fingertips. Gloves that are too tight may break unexpectedly.

c. Check gloves for obvious tears or punctures before and after putting them

on.

d. Immediately replace gloves if they become torn or punctured during use.

e. **Do not** wash nitrile or vinyl gloves which contaminated with blood or body fluids. Washing increases the permeability of these gloves and increases the risk of exposure.

f. Do wash chemical contamination off chemical resistant gloves before removal. These gloves are not affected by washing with ordinary soaps or detergents and water.

g. Dispose of nitrile or vinyl gloves in the proper containers after use and **do not** reuse them.

h. Gloves must be worn in the laboratory whenever significant risk of exposure to blood and body fluid exists. Significant risk of exposure means a possibility of skin contact via drips, splashes, spills, aerosol formation, etc.

i. Gloves must be worn when performing phlebotomy.

j. Nitrile or vinyl glove removal:

    i. Remove one glove by peeling it off the hand by the cuff so it becomes turned inside out.

    ii. Place it in the palm of the remaining gloved hand.

    iii. Remove the second glove by peeling it off the hand over the first glove so it becomes turned inside out with the other glove inside it.

    iv. Discard the gloves into a proper container.

k. Chemical Resistant Neoprene glove removal:

    i. Rinse or wash any chemical contamination off the gloves.

    ii. Remove each glove by peeling the cuff down the hand until the glove can be pulled off by the fingertips.

    iii. Restore the gloves with the outside out.

    iv. Allow to dry before storing.

l. As a general rule, all items within the laboratory should be considered contaminated (ie, “dirty”) and all offices should be considered “clean”. Gloves are to be worn when touching or working with equipment within a contaminated area and not worn when using “clean” items. It is up to the individual laboratory sections to specifically designate what items are “dirty” and what are “clean”. This includes instruments, computers, phones, and specific areas within a laboratory including offices. Door handles leading to a clean area will be universally designated as clean, and one should NEVER access these door handles with gloved hands. This does not apply to doors between dirty areas.

m. Do not wear gloves outside of the laboratory. The only exception is with

the transportation of a specimen from one laboratory area to another. It is appropriate to remove one glove to open a door handle, while leaving the other glove on to hold the specimen.

n. There are certain specific instances where gloves are not required. Refer to the specific laboratory sections' safety policies for specific details.

o. The laboratory will, whenever possible, only use non-latex products, including gloves.

p. Employees who suspect latex allergy must be seen by Employee Health Services (EHS) for validation of allergy and recommendations. The employee will take the EHS recommendation to their department manager who will authorize the ordering of appropriate gloves.

q. Education Materials
   - How to Prevent Latex Allergies (NIOSH Fast Facts)
   - Understanding Latex Allergy in the Healthcare Setting

3. **Eye Protection:** Chemical splash goggles are to be used for any process that involves acids, bases, or any other chemical where there is any high risk of a splash.

4. **Contact Lens Use**

   a. Manipulation of contact lenses in the lab is prohibited.

   b. It is the Laboratory Safety Committee's recommendation contact lenses not be worn while working with chemicals in the laboratory. If an employee chooses to disregard this recommendation and wears contact lenses while working in the lab, they should be aware of the potential dangers.

      i. Chemicals and/or chemical vapors can get trapped between contact lenses and the eye and cause damage to the eye.

      ii. Eye washes are not designed to remove items from eyes where contact lenses are present and are not as effective are removing chemicals thus permanent damage may still occur.

   c. For employees wearing contact lenses, tight fitted, chemical indirect vented goggles should be worn. Face shields, in addition to goggles can provide further protection.

5. **Face Protection**

   a. When handling an open container of blood, body fluid, or tissue, face protection is required. This may be in the form of a wearable face shield or a splash shield that is fixed in position on the bench or instrument, or goggles in conjunction with a surgical mask that covers the nose and mouth.

   b. Do NOT take wearable face shields outside of the laboratory once used.

   c. Face shields are not required when handling routine culture plates or tubes (i.e. Microbiology).

IV. PERSONAL ITEMS:

A. Do not store personal items, such as coats, sweaters, etc. within the laboratory. Employees are provided areas to store personal articles while they are working. Individual laboratory sections can designate discrete areas within the laboratory where employees can store valuables (purses, etc.) if they so choose. These areas should not be labeled as to attract theft.

B. Do NOT store or consume food or beverages in specimen testing areas or in areas where specimens or reagents are stored, i.e. “dirty” areas.

Approval Signatures

Step Description	Approver	Date
CLIA Site Licensed Medical Directors	Muhammad Arshad: Chief, Pathology	1/8/2024
CLIA Site Licensed Medical Directors	Jeremy Powers: Chief, Pathology	1/3/2024
CLIA Site Licensed Medical Directors	Subhashree Mallika Krishnan: Staff Physician	12/27/2023
CLIA Site Licensed Medical Directors	John Pui: Chief, Pathology	12/26/2023
CLIA Site Licensed Medical Directors	Vaishali Pansare: Chief, Pathology	12/26/2023
CLIA Site Licensed Medical Directors	Ryan Johnson: OUWB Clinical Faculty	12/19/2023
CLIA Site Licensed Medical Directors	Kurt Bernacki: System Med Dir, Surgical Path	12/19/2023
CLIA Site Licensed Medical Directors	Ann Marie Blenc: System Med Dir, Hematopath	12/19/2023
Policy and Forms Steering Committee Approval (if needed)	Christopher Ferguson: Mgr, Laboratory	12/19/2023
	Sarah Britton: VP, Laboratory Svcs	12/19/2023
Operations Directors	Brittnie Berger: Dir, Lab Operations C	12/1/2023
Operations Directors	Amy Knaus: Dir, Lab Operations C	10/23/2023

Operations Directors	Elzbieta Wystepek: Dir, Lab Operations B	10/23/2023
Operations Directors	Joan Wehby: Dir, Lab Operations C	10/20/2023
Operations Directors	Kimberly Geck: Dir, Lab Operations B	10/19/2023
	Christopher Ferguson: Mgr, Laboratory	10/19/2023

Applicability

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

History

Edited by Ferguson, Christopher: Mgr, Laboratory on 10/19/2023, 10:50AM EDT

> Biennial review. Changed OHS to EHS.

Last Approved by Ferguson, Christopher: Mgr, Laboratory on 10/19/2023, 10:50AM EDT

Last Approved by Geck, Kimberly: Dir, Lab Operations B on 10/19/2023, 3:03PM EDT

Last Approved by Wehby, Joan: Dir, Lab Operations C on 10/20/2023, 3:34PM EDT

Last Approved by Wystepek, Elzbieta: Dir, Lab Operations B on 10/23/2023, 1:54PM EDT

Last Approved by Knaus, Amy: Dir, Lab Operations C on 10/23/2023, 9:02PM EDT

Last Approved by Berger, Brittnie: Dir, Lab Operations C on 12/1/2023, 11:50AM EST

Last Approved by Britton, Sarah: VP, Laboratory Svcs on 12/19/2023, 8:52AM EST

Last Approved by Ferguson, Christopher: Mgr, Laboratory on 12/19/2023, 9:53AM EST

Last Approved by Blenc, Ann Marie: System Med Dir, Hematopath on 12/19/2023, 10:25AM EST

Last Approved by Bernacki, Kurt: System Med Dir, Surgical Path on 12/19/2023, 10:47AM EST

Last Approved by Johnson, Ryan: OUWB Clinical Faculty on 12/19/2023, 1:14PM EST

Last Approved by Pansare, Vaishali: Chief, Pathology on 12/26/2023, 8:22AM EST

Last Approved by Pui, John: Chief, Pathology on 12/26/2023, 8:28AM EST

Last Approved by Mallika Krishnan, Subhashree: Staff Physician on 12/27/2023, 1:48PM EST

Last Approved by Powers, Jeremy: Chief, Pathology on 1/3/2024, 8:18AM EST

Last Approved by Arshad, Muhammad: Chief, Pathology on 1/8/2024, 10:53AM EST

Activated on 1/8/2024, 10:53AM EST