

INFECTION CONTROL PLAN PATHOLOGY & LABORATORY MEDICINE

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Table of Contents

| | |
|---|----------|
| 1. Purpose | 3 |
| 2. Scope..... | 3 |
| 3. Responsibilities..... | 3 |
| A. Employer..... | 3 |
| B. Occupational Health and Safety Department..... | 3 |
| C. Supervisory Staff and Safety Officer..... | 3 |
| D. Employees..... | 3 |
| 4. Definitions..... | 4 |
| 5. Exposure Control Plan..... | 4 |
| A. Exposure Determination..... | 4 |
| B. Task Assessment..... | 4 |
| C. Risk by Job..... | 5 |
| 6. Methods of Compliance..... | 5 |
| A. Standard Precautions..... | 5 |
| B. Safe Work Practices..... | 5 |
| 1) General Work Practices..... | 6 |
| 2) Hand Hygiene..... | 7 |
| 3) Handling Needles/Syringes and other sharp objects..... | 8 |
| C. Engineering Controls..... | 9 |
| 1) Maintenance and Inspection..... | 9 |
| 2) Minimization of aerosols..... | 9 |
| 3) Mechanical pipettes..... | 10 |
| 4) Sharps containers..... | 10 |
| 5) Shipping Containers..... | 10 |
| 6) Biological Safety Cabinet..... | 10 |
| D. Personal Protective Equipment..... | 11 |
| 1) PPE uses in Lab..... | 11 |
| 2) Guideline for use..... | 11 |
| 3) Lab Coats..... | 11 |
| 4) Face Protection..... | 12 |
| 5) Gloves..... | 13 |
| 7. Housekeeping..... | 14 |
| A. General..... | 14 |
| B. Cleaning and Decontamination of Spills..... | 14 |

| | |
|---|----|
| C. Cleaning Spills with Broken Glass..... | 15 |
| D. Spills with Culture Media..... | 15 |
| E. Centrifuge breakage..... | 15 |
| 8. Hazard Communication..... | 15 |
| 9. Waste Disposal..... | 16 |
| 10. Laundry..... | 17 |
| 11. Pathology Specimens..... | 17 |
| 12. Protection of Laboratory Workers from Infectious Disease..... | 17 |
| A. Management of Exposure..... | 17 |
| B. Occupational Health Response..... | 17 |
| C. Hepatitis B Vaccination..... | 18 |
| 13. Isolation Policy..... | 18 |
| A. General Practices..... | 18 |
| B. Isolation Signage..... | 19 |
| C. TB Isolation (Airborne precautions)..... | 26 |
| 14. Training..... | 26 |
| 15. References..... | 26 |
| 16. Attachment A PPE Maintenance..... | 28 |
| 17. Attachment B Glossary..... | 29 |

INFECTION CONTROL PLAN, PATHOLOGY AND LABORATORY MEDICINE

1. **PURPOSE:** This infection control plan sets forth policy, procedures, training plan and work practices intended to protect employees from exposure to bloodborne pathogens encountered in the laboratory. This plan is intended to meet the requirements of 29 CFR 1910.1030, Occupational Exposure to Bloodborne Pathogens Standard.
2. **SCOPE:** Since no blood or potentially infectious material can be assumed to be free of HIV, HBV, or HCV infectivity, any employee who has occupational exposure to these substances is included within the scope of this standard. In laboratory this includes all technical (Medical Technicians and Technologists), supervisory and clerical staff.
3. **RESPONSIBILITIES:**
 - A. Employer:
 - 1) Provide and maintain a safe work environment for all employees.
 - 2) Make available for use personal protective equipment and various engineering controls required for safe laboratory operation.
 - 3) Provide vaccination against HBV and medical consultation to all employees working with blood borne pathogens.
 - 4) Provide training in blood borne pathogen safety.
 - B. Occupational Health and Safety Department:
 - 1) Occupational Health is responsible for the evaluation of needle stick injuries and/or other exposure type incidents.
 - 2) Provide counseling regarding exposure accidents and emergency treatment for those situations that require immediate attention.
 - 3) Occupational Health will administer the HBV vaccine and will maintain employee records.
 - C. Supervisory staff/ Safety Officer:
 - 1) Annually review the VA's written exposure control plan and implement any modification in procedures.
 - 2) Enforce the use of PPE and engineering controls.
 - 3) Provide annual training regarding the Blood borne Pathogen ruling.
 - 4) Ensure new employees/students receive training on the plan within thirty days of appointment.
 - 5) Evaluate work practices and perform a workplace hazard assessment to be reviewed annually for each job classification within lab.
 - D. Employees:
 - 1) Report any unsafe working condition and/or accidents.

- 2) Know and abide by the Standard Precautions and Infection Control policies.
- 3) Disinfect spills immediately.
- 4) Comply with recommended methods of compliance (PPE, work practices, etc).

4. **DEFINITIONS:** See Attachment B

5. **EXPOSURE CONTROL PLAN:**

A. Exposure Determination

1) Task Assessment: Tasks performed within the Laboratory require a minimum of gloves and laboratory coat as personal protective equipment. Additional requirements are listed below.

| Task | Additional PPE Required | Engineering Controls |
|--|---|--|
| Discarding Urines | Safety glasses or face shield | Use hopper to minimize contamination |
| Removing caps from tubes of blood, controls and calibrators | Safety glasses or Face shield-(optional only if using engineering controls) | Splash shield or Plastic backed gauze |
| Performing maintenance on pneumatic system/analyzer | Safety glasses or face shield | |
| Performing Phlebotomy | | Sharps containers; Safety needles and other devices designed to minimize risk of needle sticks |
| MRSA processing | | Biohazard Safety hood |
| Processing positive blood cultures | | Biohazard Safety hood |
| Processing of specimen potentially infectious with risk of aerolization or respiratory transmission (TB specimens, C Diff, etc.) | | Biohazard Safety hood |
| Phlebotomy of patients in isolation precautions | Follow instructions on isolation signage for PPE/engineering | PAPR respirator or N95 respirator; Isolation Room; Isolation signage |

| | | |
|--|---------------------|--|
| | control instruction | |
|--|---------------------|--|

2) Blood borne Pathogen Exposure Risk by Job:

| Job Classification | Exposure | Tasks/Procedures |
|----------------------|------------------|---|
| Medical Technologist | Regular exposure | * Phlebotomy * Testing samples; * Prepare sample for send out * Centrifuging samples * Instrument maintenance |
| Medical Technician | Regular exposure | * Phlebotomy; * Centrifuging samples * Testing of samples * Prepare samples for send out * Instrument maintenance |
| Secretary OA/ Clerk | Some exposure | * Receive specimens, supplies or shipments. |

6. METHODS OF COMPLIANCE:

- A. **Standard Precautions:** See attachment C. Based on the principle that all blood and body fluids, secretions, excretions except sweat, non-intact skin, and mucous membranes may contain transmissible infectious agents. The laboratory will follow the facility's Standard Precautions and Safe Work Practices policy, located in the Red book- Section I, Chapter 18 Attachment A.
- B. **Standard precautions and safe work practice controls:** All clinical specimens should be treated as infectious. Biosafety level 2 practices should be followed when handling clinical specimens, blood, body fluids or tissues. The following work practices have been taken from the US Department of Health and Human Services, *Biosafety in Microbiological and Biomedical laboratory-Edition 5* and *CLSI (Clinical and Laboratory Standards Institute) Guidelines M29-A3 and GP17-A2*. These practices shall be used to eliminate or minimize employee exposure.

1) **General Work practices**

- a) Laboratory rooms will have closable doors. Access to laboratory will be locked and restricted to authorized personnel.
- b) Sinks are located within all major work areas.
- c) Gowns and gloves are used routinely in accordance with general safety guidelines.
- d) Mouth pipetting is prohibited.
- e) Perform all procedures to minimize the creation of splashes and/or aerosols. Workers performing procedures that create aerosols must use additional engineering controls as designated. (Facial barrier protection should be used if splashes and sprays of blood or body fluids can be anticipated. Biosafety hood should be used if aerolization is anticipated).
- f) Decontaminate work surfaces daily, after completion of work and after any spill or splash of potentially infectious material with 10% bleach solution or Sani-cloths.
- g) No eating, drinking, smoking, application of cosmetics or manipulation of contact lenses occurs in the work area. All food and drink are stored outside the restricted area and laboratory glassware is never to be used for food or drink.
- h) Personnel are instructed to avoid touching their face, ears, mouth, eyes or nose with their hands or other objects such as pencils, pipettes etc. in the work area.
- i) Hair should be secured back off the shoulders to prevent it from contact with contaminated materials or surfaces and to prevent shedding of organisms into the work area. It is also important to keep hair out of moving equipment.
- j) Do not wear jewelry that can become caught in equipment or hang into infectious material
- k) Per HCSM-FM-01 (Red Book) Section I, Chapter 18, attachment A: Artificial fingernails, extenders, overlays, etc. will not be allowed on any staff person who gives direct hands on patient care. Only well groomed, natural fingernails that are less than ¼ inch long are permissible. Chipped nail polish is NOT permissible.
- l) Per Section 1, Chapter 15 (Red Book) footwear must offer protection from anticipated hazards in the workplace. Minimum footwear criteria for exposure: puncture resistant; splash/spill resistant; not immediately absorbent (no cloth material or open weave); toe, sides and upper arch covered; closed heel (heel strap allowed in most cases), vents allowed if protected from spills.

- m) Safety policies for handling sharps: See 4. b. 3). *Handling needles, syringes and other sharp objects.*
- n) All blood and body fluid specimens are placed in well-constructed containers with secure lids to prevent leaking during transport. Specimens collected by nursing staff will be placed in a plastic biohazard bag prior to transport.
- o) Blood is packaged for shipment in accordance with regulatory agency requirements for etiologic agents or clinical specimens, as appropriate.
- p) Infectious waste is disposed into biohazardous containers. Biohazard containers should be closable, conveniently located and adequate for the amount of infectious waste generated in laboratory areas.
- q) Infectious waste is not compacted and is decontaminated (incineration or autoclaving) before its disposal at a landfill. Proper packaging of infectious waste includes orange or red bags or red puncture resistant containers. Containers and red bags must display the biohazard symbol. Waste should be handled only by trained personnel.
- r) Equipment to be repaired or submitted for preventive maintenance must be decontaminated before it is shipped.
- s) All persons should wash their hands after completing laboratory activities and should remove laboratory coats and protective clothing before leaving the laboratory.
- t) Tourniquets are single use and are to be disposed between patient draws.
- u) Accidental exposure to suspected or actual hazardous material is reported to the laboratory manager or responsible person immediately.

2) Hand hygiene: Frequent effective hand hygiene is the first line of defense in infection control.

- a) Hand hygiene should always be done before touching a patient, before clean/aseptic procedures, after body fluid exposure/risk, after touching a patient, and after touching patient surroundings.
- b) When washing hands with antimicrobial soap and water, wet hands first with water, apply the antimicrobial soap to the hands, and rub the hands together vigorously for at least 15 seconds, covering all surfaces of the hands and fingers. Rinse hands with water and dry thoroughly with a disposable towel. Use a clean disposable towel to turn off the water.

- c) Washing with soap and water is to be done when hands are visibly soiled. If hands are not visibly soiled, an alcohol-based hand rub can be used for routinely decontaminating the hands.
- d) Hand washing facilities are located in all major work areas of the laboratory. Each site is equipped with antimicrobial soap and paper towels. Blood drawing rooms/alcoves and blood drawing carts are also equipped with antimicrobial hand rinse for use between each patient and before donning a new pair of gloves.
- e) Laboratory has designated the sink in the send out area as a clean sink. Chemicals, waste etc. should not be disposed in this sink. If staff must use the sink for this purpose, disinfect immediately with appropriate cleaning solution.

3) **Handling Needles/Syringes and Other Sharp Objects Policy:** The following precautions must be followed when working with sharp items:

- a) Needles must not be bent, sheared, broken, recapped, removed from disposable syringes, or otherwise manipulated by hand before disposal into a puncture resistant, leak proof container. (Needle holders and needles are to be disposed as one unit; holders are not reused).
- b) Needles/syringes with safety devices (self-sheathing needles, blood transfer devices, push button retraction etc.) are designed to minimize exposure to sharp objects and **must** be utilized when performing phlebotomies.
- c) Safety devices will be engaged **immediately** after use on all safety needles/syringes. All sharps, even those with the safety device engaged, will be disposed of in a sharps container. All syringes with a luer lock tip (for attaching a needle) regardless of what they were used for, will be disposed of in a sharps container also.
- d) Needle/syringe disposal containers will be easily accessible and located as close as feasible to the immediate areas where sharps are used frequently or are reasonably anticipated to be found (i.e. all phlebotomy stations, carts, blood draw trays).
- e) Never force any sharps into a sharps container.
- f) There is an on-going evaluation of new devices for safer blood draws. All staff performing phlebotomies are asked participate in the evaluation and selection of safety devices considered.
- g) Sharps injuries and corrective action are to be documented through the ASISTS program and reviewed monthly by the Incident Review Committee.

- h) When drawing blood on a combative patient, assistance should be obtained to adequately restrain the patient for safety to both patient and staff. Do not perform the phlebotomy if you cannot proceed in a safe manner.
- i) Broken glassware must not be handled directly. Instead, it must be removed using a brush and dustpan, tongs, or forceps. Plastic ware should be substituted for glassware whenever possible.
- j) Environmental Management services are responsible for distribution and collection of needle disposal containers throughout the medical center.

C. Engineering controls

1) Maintenance and Inspection

| Engineering Control | Inspection | Performed By |
|--|-----------------------|--|
| Splash Shield | Prior to use | Lab Staff |
| Face shield/safety glasses/goggles | Prior to use | Lab Staff |
| Sharps container | Prior to use | Lab Staff |
| Mechanical Pipettes | Prior to use | Lab Staff |
| Centrifuge covers | Prior to use; weekly | Lab Staff |
| Safety Hood (Biosafety Cabinet Level II) | Daily; Yearly | Lab Staff; CSI (Certification Services Inc.) |
| PAPR Respirator | Prior to use; monthly | Lab Staff; Respiratory therapy |
| Respirator-N95 | Prior to use | Lab Staff |

In addition, engineering controls are inspected by the safety officer or designee during the quarterly lab environmental surveillance inspection. Items that do not pass inspection are to be brought to the attention of the safety officer for replacement, repair or cleaning.

2) To reduce the risk of aerosols, these methods should be used:

- a) Twist off tube stoppers- do not pop off. Cover tube stoppers with plastic backed gauze or work behind splash shields
- b) Tubes must remain capped when centrifuging.
- c) Clean centrifuges weekly with a disinfecting solution (10% bleach or Sani cloth germicidal wipes).
- d) Pour specimens off slowly and carefully to minimize splashing.

- e) All centrifuges within the lab are equipped with dual safety lid locks, imbalance sensors and sealed buckets lids that reduce and/or contain the chance of aerosol contamination.
 - f) Procedures with a potential for creating *infectious* aerosols/splashes are conducted in a Biosafety cabinet.
 - g) If splashing or aerosols of blood and body fluids is anticipated, the use of masks, safety glasses, or face shields is required.
- 3) Mechanical pipetting devices: Mechanical pipetting bulbs and devices are to be used whenever pipetting is performed. Mouth pipetting is prohibited. Devices are located at all work stations throughout laboratory.
- 4) Sharps containers:
- a) Needles and sharps are to be discarded into closable, puncture resistant containers labeled for that purpose and displaying the biohazardous symbol.
 - b) Containers will be maintained in an upright position and disposed when they are $\frac{3}{4}$ full.
 - c) Sharps containers will be easily accessible and located as close as feasible to the immediate areas where sharps are used frequently or are reasonably anticipated to be found (i.e. all phlebotomy stations, blood carts, blood draw trays, etc.)
 - d) Sharps containers are collected by Facilities Management and are decontaminated by an outside contracting facility.
 - e) Containers are inspected weekly for proper use by the safety officer; any problems encountered are reviewed immediately with staff via email/safety meeting.
- 5) Containers:
- a) Primary containers must be appropriately labeled with patient name, date and social security number.
 - b) OSHA standards should be followed when packaging blood for shipment to include a primary container, secondary container (both leak proof), absorbent material between the primary and secondary containers and a rigid outer container.
 - c) Follow specific packaging instructions for individual courier, mode of transport and type of specimens (diagnostic or infectious).
- 6) Biological Safety Cabinets: Biological safety cabinets are containment devices that facilitate safe manipulation of infectious materials and reduce the risk to personnel and the laboratory environment. Safety cabinets are used primarily when working with suspect or known infectious samples. In the laboratory, a bacteriological (Class II) hood is located in Microbiology, Rm

A64. See Biosafety Cabinet Procedure in Proquis MIC 068

D. Personal Protective Equipment:

1) Personal protective equipment is provided to employees and is to be used in conjunction with engineering controls to reduce occupational exposure to blood and body fluids. The following personal protective equipment is available in laboratory:

- Face masks, face shields/visors, safety glasses, goggles
- Plastic apron, lab coats (fluid resistant with knit cuffs and chemical resistant)
- Gloves
- PAPR and N95 respirators

Attachment A summarizes PPE used in laboratory.

2) Annually employees will complete PPE certification and attend training on PPE usage, limitation, maintenance and necessity.

3) Sequence for Donning PPE (putting on)

- Gown first
- Mask or respirator
- Goggles or face shield
- Gloves

4) Sequence for Doffing PPE (taking off)

- Gloves first
- Face shield or goggles
- Gown
- Mask or respirator

5) Guidelines for use regarding personal protective equipment (based on an historic review of incidents involving blood/body fluids):

- a) Chemistry/ Microbiology/ Phlebotomy/ Send Out/ Hematology/ Coagulation/ Blood Bank/ Serology- Lab coat, gloves and safety glasses. Safety glasses are not required while working in the biological safety hood provided the glass window is lowered.
- b) Urinalysis- Lab coat, gloves, safety glasses. A face shield is recommended when pouring specimens into the hopper or when splashing can be reasonably anticipated.
- c) Lab personnel are required to wear at least the minimal PPE (lab coats and gloves) when performing laboratory tasks.

6) Lab Coats

- a) Lab coats should have closed fronts or button closure and have long sleeves with knit cuffs

- b) The material is fluid resistant.
 - c) Lab coats and scrubs are issued to each employee at time of employment and replaced as needed.
 - d) Clean lab coats are kept in Rm. A67 cupboards. One coat is worn for phlebotomy and a different coat for all other work inside the Laboratory. Coats must be changed when working between the two areas. There are coat hooks in Rm A63 for clean coats (phlebotomy area) and dirty coats (Lab area).
 - e) Coats should be removed as to not contaminate the employee's clothing. Home laundering is not permitted.
 - f) It is the responsibility of the VA to provide, maintain, replace and/or launder all PPE deemed necessary. Hampers are provided for soiled lab coats and scrubs and laundered at this facility.
- 7) Face protection- safety glasses, face shields, goggles, splash guards, masks/ respirators
- a) Employees are issued a personal pair of safety glasses at time of employment. Safety goggles are located in all major work areas- (chemistry, microbiology, hematology, urinalysis and send outs). Additional safety glasses and goggles are located in the PPE cabinet in room 63A.
 - b) Safety shields and visors are located in work areas throughout the laboratory. Additional visors are located in the PPE cabinet in room 63A.
 - c) Contact the safety officer if replacement safety eyewear is needed.
 - d) Safety eyewear should be clean and free of scratches. Inspect glasses prior to each use.
 - e) Eyewear should be stored in a clean drawer or locker when not in use.
 - f) When eyewear is dirty or contaminated- wash with mild soap and water, rinse well and towel or air dry. Lens cleaning wipes are also available.
 - g) N95 respirator masks are fit tested upon employment and annually thereafter. Masks are to be kept free of dirt and inspected before each use for nicks, abrasions or creases. If any of the above is present, a new mask will be issued.
 - h) PAPR respirators are maintained monthly by respiratory therapy. The PAPR's are inspected prior to use.
 - i) Specific instructions for inspection, maintenance and care of the N95 and PAPR respirators are located in the Red book Section1, Chapter 8. PAPRs will be cleaned and disinfected according to recommendations provided by the manufacturer
- 8) Gloves

a) Guidelines on glove selection

| Task | Type of Glove |
|--|--|
| Working with blood and body fluids: Phlebotomy and lab tasks | Powder free nitrile or vinyl gloves. No latex. |
| Working with hazardous chemicals | Lined nitrile or rubber covered neoprene |
| Handling shipments containing dry ice. | Insulated neoprene |
| Housekeeping chores | Rubber household gloves. |

b) Guidelines for the safe use of gloves:

- Securely bandage or cover open skin lesions on hands and arms before putting on gloves.
- Change gloves immediately and do hand hygiene if they are torn, punctured or contaminated; after handling high-risk samples.
- Gloves should be used whenever performing lab tasks. Vinyl or nitrile gloves are adequate for handling most blood specimens and chemicals. (Latex gloves must not be used in patient care such as phlebotomies).
- Gloves cannot prevent penetrating injuries caused by needles or other sharp instruments
- Removal of gloves: Keep the outside surfaces in contact only with the outside and by turning the glove inside out while taking it off.
- Do not wash or disinfect gloves for reuse.

c) St. Cloud VAMC Laboratory policy on gloving:

- Gloves shall be worn while performing phlebotomies and changed between each patient (outpatients and inpatients). See safe work practices.
- Gloves must be worn the entire time when performing phlebotomies; it is unacceptable to tear off or cut off the finger of a glove for the purpose of palpating a vein and then performing the venipuncture; decide on the venipuncture site prior to gloving if necessary.
- Gloves must be used whenever tasks are likely to involve exposure to hazardous or biohazardous materials

7. HOUSEKEEPING PROCEDURES

A. General: Laboratory will follow the proper housekeeping policies set forth by the Facility Management Service Line Program and Chapter 18, Attachment A Standard Precautions and Safe Work Practices located in the Red book.

- 1) Contaminated equipment and environmental work surfaces will be decontaminated with 10% bleach or Sani-wipes after completion of procedures, immediately/or as soon as possible after any spill of blood/OPIM and at the end of the work shift. Documentation is located in work areas.
- 2) General housekeeping duties such as floors, windows and cabinet fronts are done by Facilities Management.
- 3) Sinks, cupboards and refrigerators are cleaned by laboratory staff on a regular basis.
- 4) Phones and computer terminals in the work areas are not considered sterile.
- 5) Equipment, chairs, supplies etc. are not permitted in exits or aisles
- 6) Boxes and stored items should not be allowed to sit directly on the floor; pallets or stands should be utilized.
- 7) The conference room and office areas are considered to be clean areas. Hands must be washed and soiled outer PPE removed prior to entering the room.
- 8) It is the responsibility of each person using the blood drawing tray and room to keep the area clean and stocked.
- 9) Phlebotomy stations are cleaned daily and as needed. Documentation is located in the Phlebotomy area.
- 10) Only lab personnel are allowed within the work area. Exceptions include housekeeping, biomedical repair, service technicians and sales representatives performing demonstrations of new equipment. These individuals are responsible for wearing appropriate PPE when in the work areas.

B. Cleaning and Decontaminating Spills of Blood or Other Body Fluids:

- 1) Large spills
 - a) Notify housekeeping for assistance with cleanup (pager 310).
 - b) Absorb the spill with absorbent material such as paper towels, gauze.
 - c) Flood the area with a bleach solution or germicidal detergent (to dilute the spill site, remove red blood cells and further remove proteins).
 - d) Remove with absorbent toweling (paper towels).
 - e) Housekeeping will then decontaminate the area with fresh germicidal solution.

- f) All waste (absorbent toweling) should be collected and disposed of as biohazardous waste.
 - g) Always wear lab coat, gloves and safety glasses when cleaning up blood or body fluid spills.
- 2) Small spills
- a) Use Sani-cloths to clean and disinfect the area.
 - b) The Sani-cloths are provided by SPD.
 - c) Always wear lab coat, gloves and safety glasses when cleaning up blood and body fluid spills
- C. Cleaning up spills with broken glass:
- 1) Broken glass is considered sharps. Contaminated broken glass should not be picked up with your hands—even with gloves.
 - 2) Use tongs, forceps, a brush and dustpan, or broom and dustpan.
 - 3) Pieces of broken glass should be placed in a sharps container so that no one gets cut during disposal.
 - 4) After glass has been removed the above cleanup procedures can be implemented.
- C. Spills involving culture media:
- 1) Cover the site with absorbent materials such as paper towels or gauze pads.
 - 2) Start cleanup procedure after 10 minutes.
 - 3) Dispose all waste as biohazardous.
- D. Centrifuge breakage:
- 1) If breakage occurs in the centrifuge, the equipment should remain closed for at least 30 minutes to allow the body fluid droplets to settle before decontamination procedures begin.

8. HAZARD COMMUNICATION:

- A. The biohazard label will be used to warn healthcare workers of potential risk of exposure to blood and other potentially infectious materials.
- B. A biohazard symbol will be attached to:
 - 1) Containers of regulated infectious waste (red bags or containers may be substituted for labels)
 - 2) Refrigerators or freezers containing blood or other potentially infectious material.
 - 3) Containers used to ship blood or other potentially infectious material outside the facility.
 - 4) Equipment contaminated with blood or other potentially infectious material will be decontaminated as completely as possible, but if additional

servicing is indicated, the biohazard label will state which portion of the equipment remains contaminated.

9. **WASTE DISPOSAL:** Laboratory follows the facility Waste Management Program FM-01 Section V (Red Book). Waste is separated into regulated waste and non-contaminated waste.

A. Regulated waste refers to:

- 1) Liquid, semi-liquid blood or other potentially infectious material (OPIM).
- 2) Items contaminated with blood or OPIM that would release those substances in a liquid or semi-liquid state when compressed.
- 3) Items that are caked with dried blood or OPIM that would release these materials during handling.
- 4) Contaminated sharps
- 5) Laboratory, Pathology and Microbiology wastes containing blood or OPIM.
- 6) Hazardous waste- See Proquis 036. Hazardous waste is removed by the Laboratory chemical hygiene officer, Lab designee or the safety department (ext. 6508).

B. Several types of containers are provided for the disposal of regulated wastes

- 1) Biohazard bags: These are red-orange bags that are placed inside a reusable biohazard container. Both the container and bag are labeled with the biohazard/infectious material emblem.
- 2) Sharps container: A rigid, puncture-resistant, leak proof plastic container that displays the biohazard/ infectious material emblem. In addition, lids contain an auto drop device that allows for the disposal of needles with a one handed push action. The lids seal, making the system leak proof.
- 3) RCRA black containers: Rigid, puncture resistant leak proof plastic containers. Containers are to remain closed at all times.
- 4) Sharps containers are collected by Facilities Management and are autoclaved by an outside contracting facility. See Waste Management Plan FM-01.
- 5) Hazardous waste is placed in a locked storage building outside of Building 1-(Building 69). An outside source has been contracted to dispose of the waste. See Chemical Hygiene Plan- waste disposal section IX.
- 6) The safety officer does a weekly walk-through in Laboratory work areas, observing accumulated biohazardous waste, sharps containers, and hazardous waste (RCRA regular/dual/characteristic waste) to ensure

proper use and (closure of hazardous waste containers.) The observation is documented on the Hazardous Waste Weekly Observation Log. Any problems encountered are documented and reported via email/ Lab safety meetings to employees.

10. **LAUNDRY**

- A. All laboratory laundry is assumed to be contaminated.
- B. Canvas bags are lined with a plastic bag that disintegrates on contact with water.
- C. Soiled lab coats/ scrubs/ uniforms are deposited into the grey hamper. Towels, etc. are placed into the light green hospital linen hamper.
- D. Housekeeping picks up the bags for transport to the laundry.

11. **PATHOLOGY SPECIMENS**

- A. Tissue specimens are considered to be potentially contaminated and are handled accordingly:
 - 1) Gloves are worn when handling body fluids or any tissue specimen.
 - 2) Tissue is placed in containers with 10% buffered formalin in the clinics. Container (primary) lids/caps are checked to ensure that they are secure and not leaking prior to being packaged for send out. Primary containers are put in a secondary leak-proof package and absorbent material between the primary container and secondary container before placing in a rigid outer container for transport to Mpls. VAHCS.

12. **PROTECTION OF LAB WORKERS FROM INFECTIOUS DISEASE**

- A. Management of exposure: If a laboratory worker is exposed through a needle-stick or cut, mucous membrane exposure (eyes or mouth) or skin contact, the employee will be sent to Occupational Health for evaluation. The employee will be managed by Occupational Health in accordance with HCSM CD 11-25, Infection Control Policy, and the Occupational Health Services Policy, HCSM PM-06.
- B. The Occupational Health Nurse will:
 - 1) Determine the need for post exposure prophylaxis.
 - 2) Obtain consent from the exposure source, if known, for HIV, hepatitis (B and C) testing.
 - 3) Obtain baseline laboratory values for the employee's liver function tests, HIV, and Hepatitis status.
 - 4) Provide counseling.
 - 5) Provide follow up as necessary.
 - 6) All medical records are maintained confidentially by the Occupational Health Office.

- 7) See Standard Precautions and Safe Work Practices (Attachment A) and Post Exposure Procedures (Attachment B) in the Exposure Control Plan Section 1, Chapter 18 of the Red Book.

C. Hepatitis B vaccine

- Vaccine to hepatitis B is available to all occupationally exposed employees at no cost to the employee. See Occupational Health infection control Policies PM-06 (Attachment B).

14. ISOLATION POLICY

A. General practices:

Procedures to follow *before* entering an Isolation room:

1. Follow all directions on signage before entering isolation room.
2. Check the laboratory test orders and select the equipment needed.
3. Any supplies you take into the room must be left there or discarded. Do not take trays into the isolation room. Always leave lab trays in a secure area (e.g. behind counter at the nursing station or in a locked cart).
4. Always change PPE between patients who are in the same room.
5. Hand hygiene should be completed upon entrance to the patient's room and before exiting the room, after any contact with body fluid or OPIM and before and after gloving.
6. Additional PPE may be required. See Isolation Signage below.

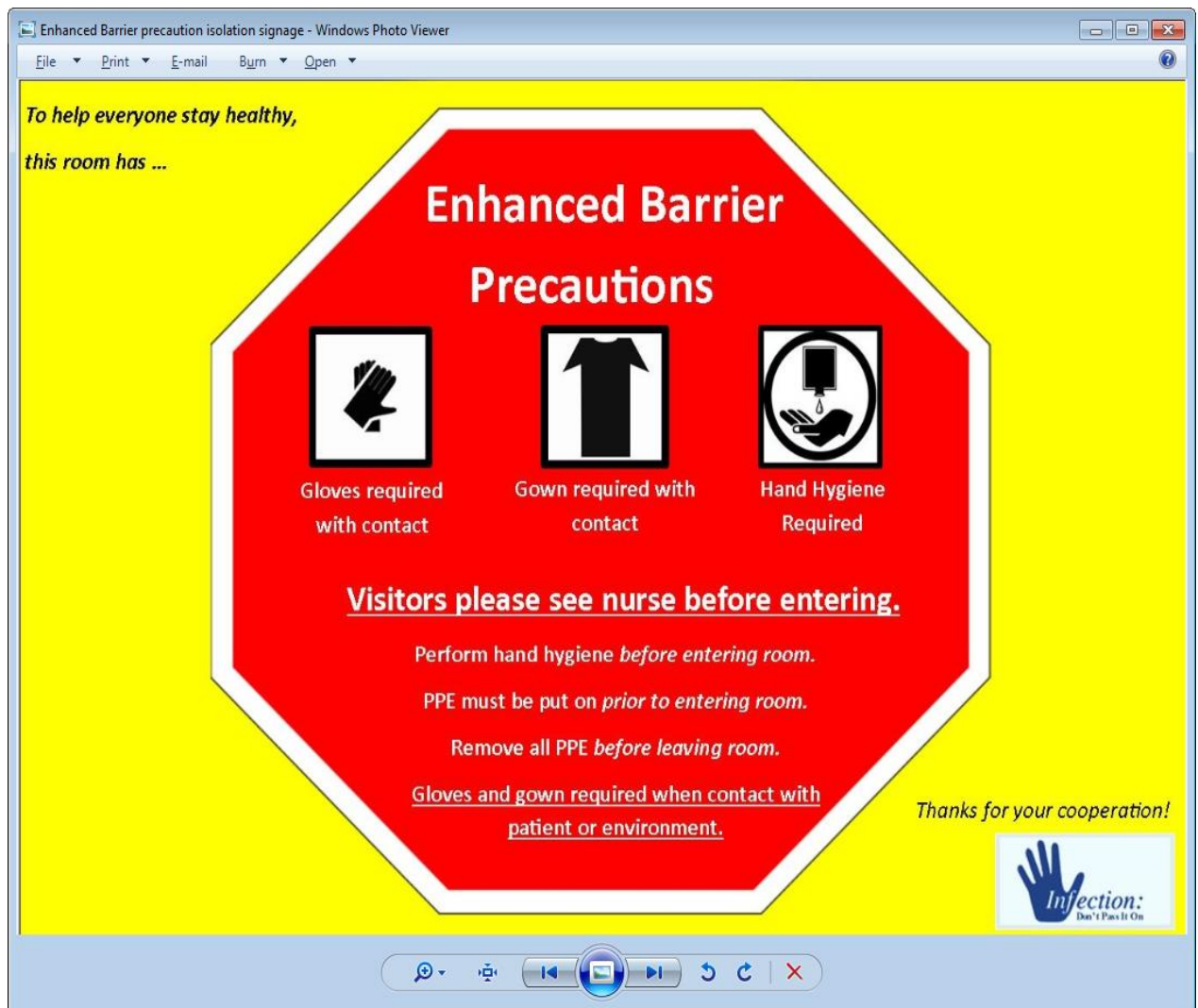
Procedures to follow *in* the Isolation room:

1. Perform hand hygiene.
2. PPE should be put on before entering the isolation room. This should be located outside the patient's room.
3. Perform phlebotomy, avoiding any unnecessary contact with the patient and the bed.
4. Dispose of blood collection equipment per facility policy.
5. Place the tubes in a biohazard bag. The bag serves as a secondary container, which will contain the specimen if the tubes break or leak in transit.
6. Remove personal protective equipment and dispose in proper containers inside the room.
7. Wash your hands.

B. Isolation Signage

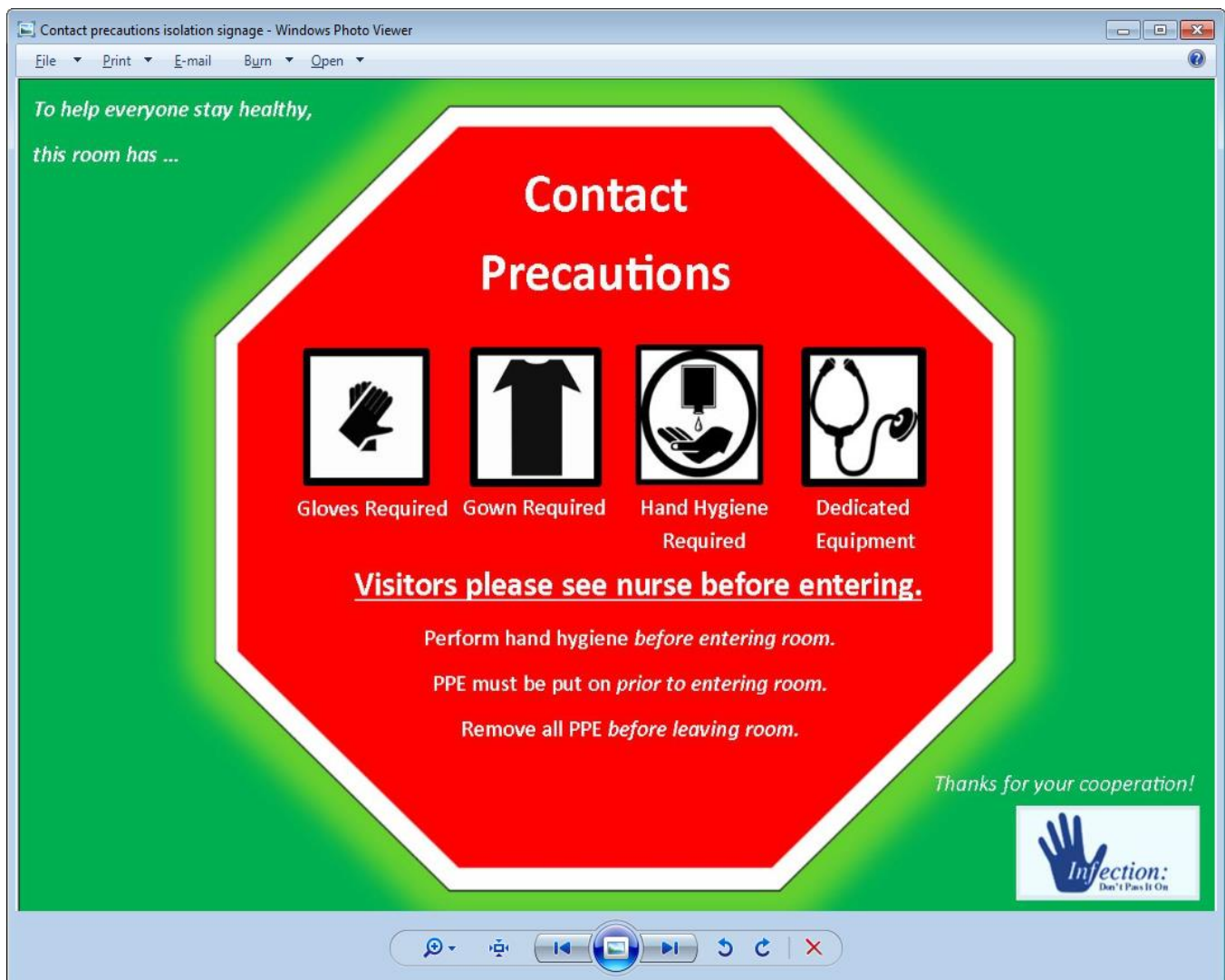
1. Enhanced Barrier Precautions sign:

- Implemented when there is anticipated contact with a colonized/infected resident or their environment.
- Does not require PPE upon entrance into the resident's room when only talking to the resident.
- PPE *MUST* be worn if it is anticipated that there will be contact with the resident or anything in the resident's room.
- Used for colonized MRSA patients.



2. Contact Precautions sign:

- Implemented when transmission occurs from physical contact made with the infected resident or the resident's environment.
- Also pertains to situations where the presence of excessive wound drainage, fecal incontinence or other discharges from the body suggest an increased potential for extensive environmental contamination.
- Includes all acute infections/admissions with MRSA, VRE, ESBL or other resistant organism, and all uncontained infections.
- Personal protective equipment (gowns and gloves) must be used by everyone (staff, volunteers and visitors) **upon entrance** into the infected resident's room.



3. Droplet Precautions:

- Implemented when transmission of diseases are caused by large respiratory droplets that are generated by coughing, sneezing, or talking.
- Special air handling and ventilation are not required to prevent droplet transmission.
- PPE: Follow instruction on signage. Wear a surgical mask if within 3 feet of the patient.
- Handle items contaminated with respiratory secretions with gloves.
- Includes influenza, meningitis, and meningococcal pneumonia



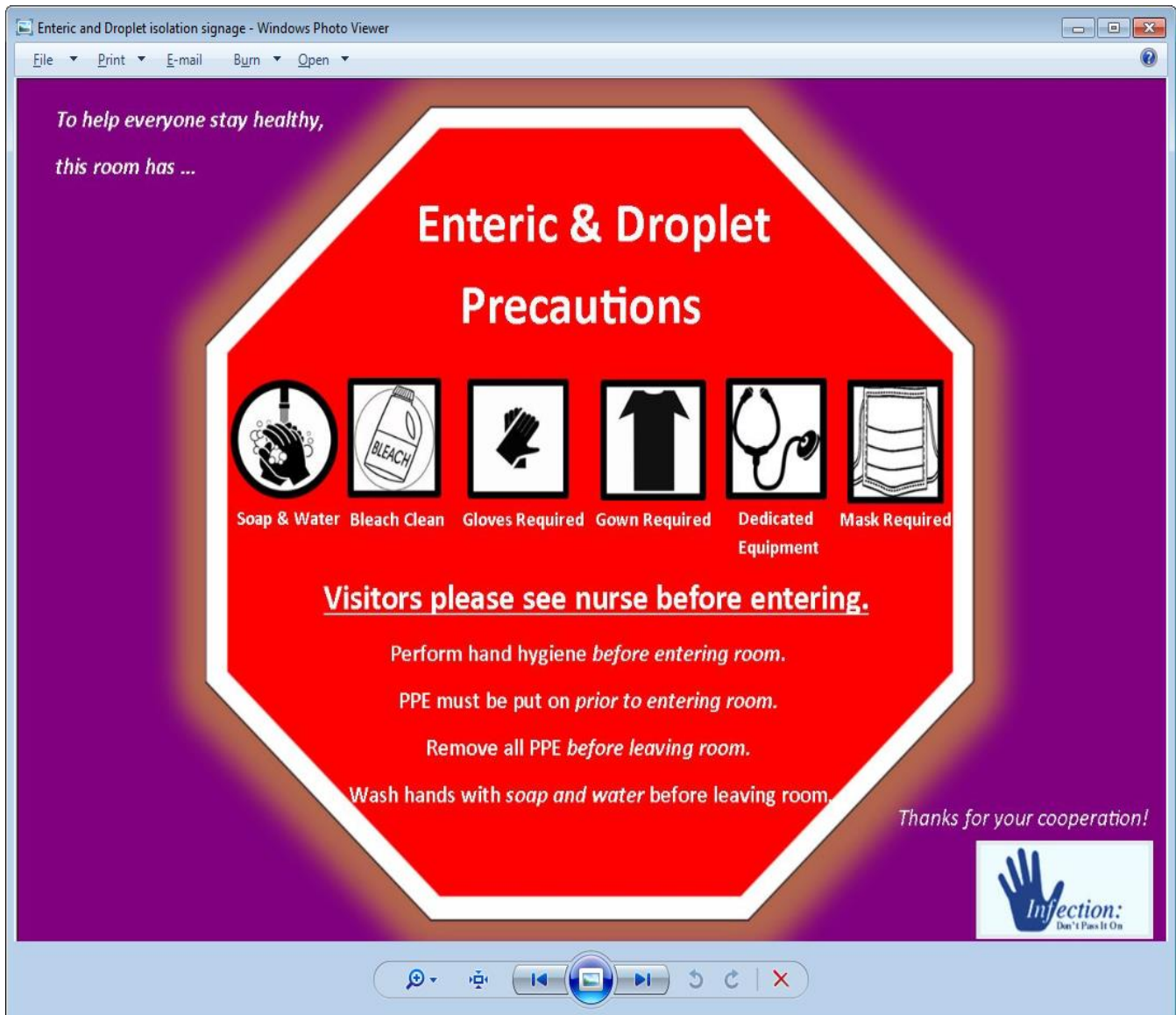
4. Droplet and Contact Precautions sign:

- Implemented when the patient requires both precautions (i.e. pneumonia and MRSA), one is spread by droplet and one is spread by contact.
- PPE: Follow instruction on signage.



5. Enteric and Droplet Precautions:

- Used when a patient requires both precautions (i.e. C-Diff and pneumonia), one is spread by droplet and one is spread by contact but requires a soap and water hand-washing, and bleach cleaning to environment due to spores.
- Follow instructions on signage



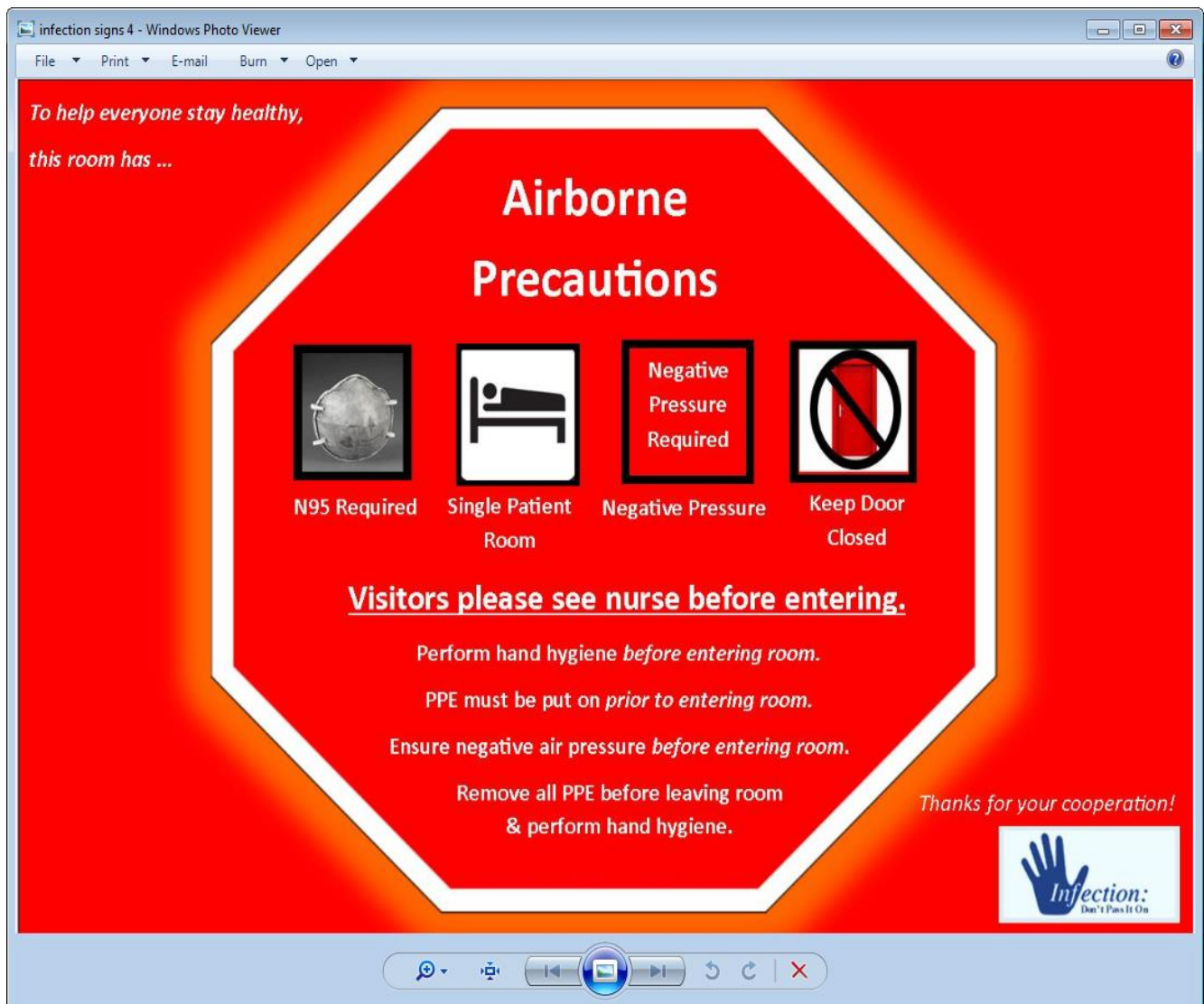
6. Enteric Precautions:

- Used specifically for diseases such as Clostridium Difficile (C-Diff), Norovirus, Rotavirus and acute diarrhea with unknown etiology.
- Private room required. Room must be cleaned with bleach.
- Use disposable and dedicated equipment.
- Follow instruction on the signage



7. Airborne Precautions sign:

- Implemented when transmission of infectious organisms remains suspended in air and travel great distances.
- These diseases include measles, smallpox, and pulmonary tuberculosis.
- Wear fit tested N-95 or PAPR.
- A negative pressure room on 50-2 should be used until the disease has been ruled out.



- D. TB Isolation (Airborne precautions):
See Lab's TB policy in Proquis GEN -129.

15. TRAINING

- A. Training will be provided as follows:
- 1) New employees will receive training by the Infection Control Nurse during the new employee orientation program.
 - 2) Annually employees participate in TMS training provided by the facility Education Service Line.
 - 3) Training within the service line as appropriate and when there are changes in work activities that affect the employee's exposure potential.
 - 4) Service line annual training of section-specific aspects of the exposure control plan, e.g. PPE.
- B. See Section I, Chapter 18, Exposure Control plan for specific content covered during annual employee trainings. Records are retained within the service line for 3 years and documented in TMS (Talent Management System).

16. REFERENCES:

OSHA 29 CFR 1910.1030 Bloodborne Pathogens Final Standard, current edition.

CLSI Guideline M29-3 Protection of Laboratory Workers from Occupationally Acquired Infections; Approved Guidelines 3rd Edition; Release 3-1-2008.

CLSI Guideline GP17-A2 Clinical Laboratory Safety; Approved Guideline- 2nd Edition; Release date 3-1-2008.

Biosafety in Microbiological and Biomedical Lab (BMBL) 5th Edition; February 2007; US Department of Health and Human Services.

St. Cloud VAHCS Red Book- Chapter 18 Exposure Control Plan, Attachment A Standard Precautions and Safe Work Practices.

Safety, Occupational Health and Fire Protection Manual (St. Cloud VAMC Red Book).

St. Cloud VAHCS Health Care System Memorandum CD11-119
Isolation Precautions Policy.

Complete Guide to Laboratory Safety; Terry Jo Giles, MT(ASCP), MA
Ed. 2nd Edition, 2007.

CDC Hand Hygiene Guidelines. October 25, 2002/ Vol. 51/ No. RR-16.

<http://www.cdc.gov/HAI/pdfs/ppe/PPEslides6-29-04.pdf>
<https://www.osha.gov/Publications/osha3151.html>

PERSONAL PROTECTIVE EQUIPMENT

| Item | Use and storage | Quantity of items provided | When to replace | Cleaning procedure |
|---|---|---|--|--|
| Lab coats | <ul style="list-style-type: none"> * Worn at all times while in the lab work areas * “In-use” coats hung on designated hooks in work area * Clean lab coats stored in cabinets or lockers | 3 per employee (white and blue lab coats) | <ul style="list-style-type: none"> * Coat is changed when soiled * Coat is replaced when damaged or worn | Facility launders all lab coats |
| Gloves | <ul style="list-style-type: none"> * Disposable, single use; gloves never washed or reused * Gloves turned inside out when removed to avoid contamination * Disposed in regular trash unless visibly soiled with blood or OPIM | As many as needed | <ul style="list-style-type: none"> * Each time hands are washed * Between patient phlebotomies * When visibly soiled * When working in lab areas. * If holes or tears are present | None- single use, disposable |
| Eyewear – (safety glasses, goggles, and visors) | <ul style="list-style-type: none"> * Worn when sprays and splashes of blood or OPIM anticipated * Stored in a clean drawer | <p>Safety glasses- 1 per person</p> <p>Face shield- 1 per work area;</p> <p>Goggles: 6 per lab</p> | Replace as needed- if cracked, scratched or no longer fitting properly | Wash with mild soap and water, rinse well, dry with a soft towel or allow to air dry |
| Respirators – PAPR and N95 | Used when working with a patient in respiratory isolation; N95 mask issued as needed; PAPRs stored in B1Annex, Rm 305. | N95 mask- Issued to employees as needed PAPR- 5 in B1Annex, Rm 305. | As needed | Follow manufacturers recommendation for cleaning of the PAPR; N95 masks should be disposed if soiled and a new one issued. |

DEFINITIONS:

- a. **Blood:** Human blood, human blood components and products made from human blood.
- b. **Blood borne Pathogens:** Pathogenic microorganisms present in human blood capable of causing disease in humans. These pathogens include, but are not limited to: Hepatitis B and C virus and Human Immunodeficiency virus.
- c. **Clinical Laboratory:** A workplace where diagnostic or other screening procedures are performed on blood or other potentially infectious material.
- d. **Contaminated:** The presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.
- e. **Contaminated Laundry:** Laundry which has been soiled with blood or other potentially infectious materials.
- f. **Decontamination:** The use of physical or chemical means to remove, inactivate or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use or disposal.
- g. **Engineering Controls:** Controls (e.g. sharps, disposal containers, self sheathing needles) that isolate or remove the blood borne pathogens hazard from the work place.
- h. **Exposure Incident:** A specific eye, mouth, other mucous membrane, non intact skin or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties.
- i. **Occupational Exposure:** The reasonably anticipated skin, eye, mucous membrane or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties.
- j. **Other Potentially Infectious Materials (OPIM):** Human body fluids including: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids.
- k. **Personal Protective Equipment:** Specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (uniforms, pants, shirts or blouses) is not intended to function as protection against a hazard and not considered to be personal protective equipment.
- l. **Regulated Waste:** Liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if

compressed; items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling; contaminated sharps and pathological and microbiological wastes containing blood or other potentially infectious materials.

- m. **Standard Precautions:** An approach to infection control. According to the concept of Standard Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV and other blood borne pathogens.
- n. **Work Practice Controls:** Controls that reduce the likelihood of exposure by altering the manner in which a task is performed (a behavior change).