

**ASHLEY COUNTY MEDICAL CENTER  
INFECTION CONTROL POLICIES AND PROCEDURES**

**TITLE/DESCRIPTION:**

Lab

**FILING NUMBER:**

ic.052

**EFFECTIVE DATE:**

Revised 5/2008

**APPLIES TO:**

Lab

**APPROVED BY:**

ICC

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**PURPOSE:**

To describe precautions and procedures that must be followed when dealing with known or potential biohazardous agents, to protect employees from disease and to prevent the diagnostic laboratory from being a source of disease for patients and community.

**RESPONSIBILITY:**

1. Physician Department Head
  - a. Assist in development and review of all policies and procedures within the department, and submit for approval to the appropriate hospital committee and document in minutes.
  - b. Train and supervise other Laboratory physicians in infection control.
  - c. Recommend revision of general guidelines, as needed, for approval by the Infection Control Committee.
  - d. Review infection control studies for any employee infection that may have occurred in the department.
2. Hospital Department Head
  - a. Responsible for proper equipment safety within the department.
  - b. Maintain a clean and safe environment.
  - c. Assure that personnel comply with infection control guidelines within the department and throughout the hospital.
  - d. Assists in presenting infection control programs for the department.
  - e. Revise guidelines as needed for approval by the hospital and the Infection Control Committee.
3. Infection Control Practitioner

- a. Assist in formulation of infection control guidelines.
  - b. Periodically assess compliance with these guidelines.
  - c. Present infection control education programs when necessary.
  - d. Study outbreaks of infection related to the department.
4. Infection Control Committee
- a. Review, revise and approve policies for infection control.
  - b. Review report of infection and necessary follow-up. Document in committee minutes.

PERSONNEL:

1. Employee Health
  - a. Laboratory personnel must participate in the Employee Health Program.
  - b. Employees must not work in direct patient contact if they have skin, respiratory or gastrointestinal infection.
  - c. Employees should notify supervisor in case of accident, injury, exposure or illness.
  - d. Employees with open cuts should not handle contaminated blood or specimens.
  - e. Employee should follow all infection control policies in the department.
  - f. Standard precautions will be observed.
2. Personal Hygiene
  - a. Hair longer than shoulder length must be worn in such a way that it will not obscure vision and will not be a hazard around automated equipment and open flames.
  - b. Clean uniforms should be worn each day.
  - c. Employees must wash hands before leaving lab area.
  - d. Standard precautions will be observed by all personnel.

FOOD AND DRINKS:

1. Food, candy, gum or beverages for human consumption should not be taken into or consumed in any area where work with biohazardous materials is conducted.
2. Employees wearing contaminated laboratory clothing should not enter lunchroom.
3. Refrigeration equipment in lunchroom should be used only for storage of lunches; storage of food supplies should not extend beyond one working week. No food should be stored in any refrigerator containing biomedical materials.
4. There should be no food dispensing machines in any area of a biohazardous unit.
5. Employees should wash their hands before using any lunch room area.

SMOKING:

1. Ashley County Medical Center is a non-smoking facility.
2. Smoking is prohibited on hospital grounds.

EMPLOYEE EDUCATION:

1. All personnel should receive training in isolation techniques.
2. Policies and Procedures of department should include infection control measures. Employees should review policies and procedures annually.
3. Phlebotomists should be trained in antiseptic skin prep technique.
4. All personnel should know how to handle spills of contaminated materials.

OPEERATION OE EQUIPMENT:

1. No employee should operate any equipment that he/she is not authorized and trained to use. No employee should operate new or unfamiliar equipment until the supervisor has been contacted for instruction and authorization.
2. Equipment known or suspected of being faulty should not be operated. Mechanically unsafe equipment should be tagged and reported to the supervisor.
3. Portable electric fans are undesirable in biohazardous areas.

BOOKS AND JOURNALS:

1. Every effort should be made to limit the number of books and journals held in biohazardous areas. Books and journals should not be taken in laboratory rooms where biohazardous agents are being used. Before removal of books or journals from a biohazardous area, appropriate decontamination should be accomplished.
2. Books on loan from outside libraries should never be taken into biohazardous areas.

#### IDENTIFICATION AND CONTROL OF BIOHAZARD AREAS:

##### Traffic Control:

1. Admission of individuals not assigned to any posted area should be only reasons of business; they should be accompanied by a member of the Laboratory staff and don appropriate attire according to hospital policy.
2. Biohazard areas signs should be left in place.
3. When maintenance personnel enter a biohazardous area, the supervisor must ensure that all precautions are understood and that any unnecessary hazards in the area are secured or decontaminated. All equipment to be serviced shall be rendered free of infectious organisms prior to servicing.
4. Laboratory coat worn in biohazard area should not be worn outside of the area.

##### Signs, Marking, and Color Code:

1. All precautionary and safety signs should conform to :
  - a. Occupational Safety and Health Standards, published in the Federal Register, Wednesday, October 18, 1972, Volume 37, Number 202, Part II, Paragraph 1910.45, entitled "Specifications for Accident Prevention Signs and Tags."
  - b. American National Standards Institute – Standard 235.1 – 1972 Accident Prevention Signs.
  - c. American National Standards Institute – Standard 253.1 – 1971 Marking of Physical Hazards.
2. The NIH Biohazard Sign (Form NIH 645-4) should be used to identify all restricted biohazardous areas.
3. All incubators, refrigerators, and similar storage spaces for biohazardous materials should bear a Biohazard symbol. When incubators, refrigerators, etc., are so marked and are no longer being used for storage of infectious materials, the markings should be removed and the equipment decontaminated.

Pipettes:

1. No mouth pipetting allowed in the laboratory.
2. No infectious mixtures should be prepared by bubbling expiratory air through a liquid by means of a pipette.
3. Non- disposable, contaminated pipettes should be placed horizontally in a pan containing enough disinfectant for complete immersion. Cylinders used for vertical discard are not recommended. The pan and pipettes should be autoclaved as a unit and replaced by a clean pan with fresh disinfectant.
4. If a vertical pipette cleaning system is available, non-disposable pipettes should be placed only in cylinders containing sufficient fluid to completely immerse the entire pipette.

Syringes:

1. Disposable syringes used with biohazardous materials should be the LUER\_LOK type or equivalent to assure that the needle cannot separate during use.

Needles, syringes, and sharps are to be discarded in “Contaminated” needle boxes.

Centrifuges and Shakers:

1. Before centrifuging, tubes should be checked for cracks; the inside of the trunnion cups should be inspected for rough walls caused by erosion or adhering matter, and pieces should be carefully removed from the rubber cushion. A germicidal solution added between the tube and trunnion cup not only disinfects the outer surfaces of both, but also provides cushion against shocks that might otherwise break the tube. Metal or plastic tubes (other than nitrocellulose) should be used whenever possible.
2. Decanting from centrifuge tubes should be avoided. If necessary, the outer rim should be wiped with a disinfectant after decanting so that the material on the lip cannot spin off as an aerosol. The centrifuge tube should never contain liquid within 0.5 cm. of the rim, so that a rim wet with culture is avoided.

Water Baths

Water baths used to inactivate, incubate or test biohazardous materials should contain a disinfectant. Adequate changes of disinfectant should be made.

Refrigerators, Deep Freeze and Dry Ice Chests:

Refrigerators, deep freezer and dry ice chests should be checked, cleaned out, and defrosted periodically to remove any ampules, tubes, etc., containing biohazardous materials that may have broken during storage. Rubber gloves are recommended during cleaning. All materials, especially infectious or toxic, stored in refrigerators or deep freezers should be labeled with scientific name, date stored, and initials of the individual storing the material. Do not store flammable solutions in non-explosive-proof refrigerators.

#### Test Tube Techniques:

Tubes containing biohazardous materials should be manipulated with extreme care. Studies have shown that simple procedures such as removing a tube cap or transferring an inoculum can create a potentially hazardous aerosol.

Manipulation of biohazardous material should be conducted in safety cabinets or under safety hood. Tubes and racks of tubes containing biohazardous material should be clearly marked. Whenever possible, safety test tube trays should be used in place of conventional test tube racks to minimize spillage from broken tubes. A safety test tube tray is one having a solid bottom and sides deep enough to hold all liquids should a test tube break.

#### Work Habits:

Self-inoculation may be prevented by keeping the hands and items such as pencils away from the mouth, nose, eyes, and face. Avoid application of make-up and insertion of contact lenses. All specimens should be handled as contaminated. Contamination from splashing is minimized by wearing a face shield and mask.

#### Serum and Blood Specimen Hazard:

Diagnostic serum specimens carry a risk of infection with serum hepatitis and should be handled carefully.

#### Disposable Gloves:

These should be worn when handling visibly contaminated specimen containers, AB cultures, stool cultures and during any cleaning procedures.

#### PROCEDURES FOR DISPOSAL OF CONTAMINATED MATERIAL:

1. Locations
  - a. All contaminated or suspicious specimens, including cultures and culture material (serums, pipettes, swabs, etc.) should be placed in a biological bag and waste baskets marked as Biohazardous Waste>
  - b. All biohazard waste baskets will be emptied by housekeeping for proper infectious waste disposal.

2. Disposal
  - a. All materials should remain in 1 waste container to await daily pick-up through the Housekeeping Department.
    1. Urine specimens may be drained into regular sink and the waste flushed with liberal amounts of water.
    2. Stools are not normally autoclaved due to tendency to release gas and splatter. Dispose into biohazardous waste.

### MICROBIOLOGY:

1. Swabs and Pipettes

All contaminated swabs and pipettes should be discarded in the biohazard container.
2. Culture Specimen and Plates

Culture specimens and plates should be discarded in the biohazard container.
3. Hand washing

All personnel must routinely scrub hands with germicidal soap following handling of culture material, performing microbiology procedure, and before leaving the work area.
4. Pipettes

Only sterile, disposable pipettes should be used.
5. Countertops

Countertops should be cleaned daily with a phenolic germicide solution.
6. Disposable Gloves

Disposable gloves must be worn when handling all specimens; especially, AFB cultures, stool specimens, during any cleaning procedure or tissue grinding, if container is labeled isolation, and handling any culture material when the outside of the container appears to be contaminated.
7. Inoculation

AFB or other known hazardous inoculation, stool inoculation, O & P procedure, and tissue grinding and inoculation procedures must be performed under the hood in the microbiology room.

8. Tissue Grinding Instruments

Tissue grinding instruments must be autoclaved before washing and being sent to Decontamination.

9. Blood Culture Needles

Blood culture needles should be discarded in a sharps container.

PATHOLOGY: (if performed at APMC)

1. Clothing

Personnel should wear clean uniform daily.

2. Tissue Fragments

Tissue fragments should be collected, bagged, and stored in the cooler until they can be incinerated. Tissues for histological examination should be placed in a container of 10% Formalin.

HISTOLOGY:

1. Disinfection of Cutting Board

When frozen section specimens are processed, the cutting board and all instruments should be cleaned immediately with full strength bleach, flooded with copious amounts of water, and dried with disposable paper towels.

2. The Cryostat

The Cryostat should be cleaned with absolute alcohol and dried with disposable paper towels.

3. Frozen Procedure

Upon completion of the frozen procedure, specimens should be placed in 10% Formalin.

4. Hand Scrub

Personnel involved with the frozen procedure must use germicide solution on the hands.

5. Gloves



Personnel assisting with gross examination of specimen must wear disposable gloves, gowns, aprons, masks, face shields or safety glasses should be made available.

6. Gross Cutting Board

Gross cutting board, weighing scales, and all other instruments must be cleaned immediately following use with phenolic germicide.

7. Specimens

Following gross examination, specimens should be returned to their Formalin containers and stored according to department policy.

8. Cutting Blades

Disposable cutting blades should be collected in a sharps container.

9. Disposable Gloves

Disposable gloves should be discarded in the biohazard container.

10 Routine Surgical Specimens

Routine surgical specimens should be brought to the lab in containers containing 10% Formalin.

CHEMISTRY:

1. Countertops

Countertops should be cleaned with germicide solution at least daily.

2. All Biohazard Specimens

All biological specimens and containers should be discarded in biohazard containers to be removed by housekeeping.

HEMATOLOGY, URINALYSIS, AND SEROLOGY:

1. Countertops

Countertops should be cleaned with germicide solution at least daily.

2. Blood, Biologic and CSF Specimens

Blood, Biologic and CSF specimens should be discarded in the biohazard container.

ISOLATION:

Isolation technique must be followed when collecting specimens from isolated patients.

Laboratory shall be notified of the type of isolation when patient is isolated.

Laboratory technician's tray must be brought into room. Tourniquet and vacutainer holder are left in room.

All specimens are to be taken to Laboratory immediately after collection. Specimen containers such as urine, sputum, stool, blood, wound cultures, etc., should be placed in clear bag, sealed and labeled "ISOLATION".

**ASHLEY COUNTY MEDICAL CENTER  
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL**

<b>TITLE/DESCRIPTION:</b>		<b>FILING NUMBER:</b>
Lab / Blood Bank		ic.053
<b>EFFECTIVE DATE:</b>	<b>APPLIES TO:</b>	<b>APPROVED BY:</b>
Reviewed 8/2006	Lab	ICC

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INTRODUCTION:

Blood Bank employees have direct contact with patient's blood and blood products and, therefore, run a high risk of acquiring infection, especially hepatitis B.

Unsafe handling of blood may be hazardous to patients.

PERSONNEL:

1. Employee Health
  - a. Personnel with infections should not have direct patient or donor contact.
  - b. Personnel must comply with employee health program.
  - c. Hepatitis B vaccine should be encouraged for all employees.
2. Hygiene
  - a. Clean uniforms must be worn while on duty.
  - b. Drinking, eating and smoking, applying make-up / contact lenses is prohibited anywhere in Blood Bank Laboratory.
  - c. Mouth pipetting is prohibited.
  - d. Hands should be washed before entering and leaving test area.
  - e. Spills of blood should be cleaned up immediately with Safeguard.
3. Continuing Education
  - a. All personnel should receive training in aseptic and isolation technique.
  - b. All personnel must participate in in-service classes concerning new developments in collection, processing and storage of blood.

- c. Records of continuing education should be maintained.

### TRAFFIC CONTROL

Only authorized persons should enter Laboratory area.

### BLOOD BANK:

1. Units of Blood

Even though all blood and blood products are tested for infectious agents such as hepatitis B, C HIV, and syphilis by Lifeshare Blood Center, universal precautions should be observed.

Units are to be stored @ 1-6\* C and checked daily for hemolysis and signs of microbiological contamination.

2. Outdated Units of Blood

Outdated units of blood and empty bags are placed in the biohazard container.

3. Countertops

Countertops should be cleaned with a germicidal agent at least daily.

4. All Specimens

All specimens should be discarded in the biohazard container after 7 days.

### PATIENTS:

1. All blood and body products should be handled as if contaminated.
2. All donor blood is tested for hepatitis, HIV, syphilis, and West Nile Virus by Lifeshare Blood Center.

3. In an emergency situation, if the patient receives blood before it has been tested for HBsAG and the test is later positive, the recipient's physician must be notified.

If a donor later develops hepatitis or later reports close exposure to hepatitis before donating blood, the recipient should be considered for prophylactic based treatment based on hospital policy and physician discretion.

4. All cases of post-transfusion hepatitis with clinical signs of acute liver dysfunction occurring from two weeks to six months after transfusion should be thoroughly investigated. A follow-up should be made on donors suspected in the case.

TRANSFUSION COMMITTEE:

1. Should monitor all actual or possible transfusion reactions for possible infection.
2. Infection Control Practitioner may be a member of the committee and be responsible for presenting data on post-transfusion infections.
3. Monitor justification for transfusions and their appropriateness.

DONORS: (Currently all blood is donated through Lifeshare Blood Center)

Standards for donor selection should be based on the current American Association of Blood Banks.