

UAB Biosafety Manual
Appendix 4.2
Medical Waste Management Plan

Appendix J

University of Alabama at Birmingham Medical Waste Management Plan

PURPOSE: To set forth guidelines for the management of medical waste throughout the hospital and affiliated areas of the University of Alabama at Birmingham (UAB).

PHILOSOPHY: It is our belief that it is essential to manage medical waste in accordance with applicable state and federal standards, and regulations in order to protect the health and welfare of patients, staff, visitors, and the public at large. Medical waste materials, as defined by the Alabama Department of Environmental Management (ADEM), the Department of Transportation (DoT), and UAB policy, can represent a health hazard to people who may come in contact with them or with the environment contaminated by this type of waste. Medical waste shall be properly managed from the points of origin to the ultimate disposal.

ASSOCIATED INFORMATION:

- I. **Definitions** per the Alabama Department of Environmental Management Land Division 17-Medical Waste Program, Chapter 335-17-1, Medical Waste (ADEM), 49 CFR 173.134 Hazardous Materials Regulations and UAB policy:

Medical waste shall be interpreted to mean:

- A. **Animal Waste:** Carcasses and body parts, regulated bulk blood and body fluids, and surgical waste from animals exposed to human infectious agents as a result of the animal(s) being in contact with biologicals and pharmaceuticals in testing, production and research.

Note: At UAB all animal carcasses and body parts shall be treated as medical waste and returned to the area designated by the Animal Resources Program (ARP) for disposal by UAB or its contractors.

- B. **Blood and Body Fluids:** All human bulk blood, bulk blood components (serum and plasma) and bulk specimens of blood, tissue, semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, peritoneal fluid, pericardial fluid, and amniotic fluid from patient treatment areas, clinical and research laboratories.

Note: ADEM has interpreted bulk blood to mean a volume of blood that is fluid to the point of leaking but does not include materials that are stained or tainted with blood. Accordingly, ADEM uses the example of plastic tubing that contains enough blood that can flow out of the tubing would be sufficient

quantity to be considered “bulk blood”. Tubing that has a residue or stain of blood, but not fluid, would not be considered medical waste.

- C. **Microbiological Waste**: Discarded cultures and stocks of human infectious agents and associated microbiologicals; human and animal cell cultures from medical and pathological laboratories; waste from production of biologicals; discarded live and attenuated vaccines; culture dishes and devices used to transfer, inoculate, and mix cultures.
- D. **Pathological Waste**: All discarded human tissues, organs and body parts which are removed during surgery, obstetrical procedures, autopsy, laboratory, embalming, or other medical procedures, or traumatic amputation.
- E. **Renal Dialysis Waste**: All liquid waste from renal dialysis contaminated with peritoneal fluid or with human blood visible to the human eye. Solid renal waste is considered medical waste if it is saturated, having the potential to drip or splash regulated blood or body fluids.
- F. **Sharps**: Any used or unused discarded article that is capable of cutting or penetrating the skin or can cut or puncture packaging material during transportation and has been or is intended for use in animal or human medical care, medical research or in laboratories using microorganisms. (Ex: hypodermic needles, IV tubing with needles attached, scalpel blades and syringes with or without needles attached). Glassware, glass blood vials, glass pipettes, and similar items that are contaminated with blood, body fluids, or microorganisms are to be handled as sharps.

Note: These items are to be placed directly into designated and approved sharps containers located as close to the work area as possible. They will be transported to treatment and disposal facilities by UAB or its contractor.

Other glass items that are not contaminated with blood or body fluids or other hazardous materials are to be discarded in rigid, puncture-resistant containers which are labeled “glass only” or “broken glass only” as appropriate. These containers will be removed from the facility by environmental services and disposed of in the landfill.

- G. **Surgical Waste**: All materials discarded from surgical procedures which are contaminated with human bulk blood, blood components, or body fluids, included but not limited to disposable gowns, dressings, sponges, lavage tubes, drainage sets, underpads, and surgical gloves.

- H. **Animal Waste:** Contaminated animal carcasses, body parts, bulk body fluids and bedding of animals that were exposed to pathogens. This is duplicated. Delete
- I. **Medical Waste Storage Areas:** Defined per ADEM Admin Code R. 335-17-.02(23) as *the containment of medical waste at the generating facility or some alternative place for a temporary or extended period of time at the end of which the waste is treated or stored elsewhere. Placing waste in a container at the point of generation such as a patient's room, operating room, or laboratory would not be considered as storage.*

II. HOSPITAL POLICY:

- The hospital shall manage all medical waste in a manner that meets ethical, moral, and legal obligations for which it is accountable.
- Hospital Administration shall insure there is a hospital-wide medical waste management program that is consistent with the stated hospital policy.
- The Hospital Safety Committee in conjunction with UAB Environmental Health & Safety are responsible for establishing guidelines for defining handling, and disposing of medical waste hospital-wide. They shall review and approve departmental policies and procedures initially and at least every three years thereafter.
- Departmental staff managers shall insure that staff members are properly trained and comply with established policies and procedures.
- Hospital Administration, Environmental Health & Safety, the Hazardous Materials and Waste Team and departmental staff managers shall insure that contingency plans and emergency response plans are in effect.
- Hospital Administration, Environmental Health & Safety, and departmental managers shall insure that medical waste is properly managed in the most cost effective manner.
- Sharps shall be managed in the following manner:
 - .1. All staff shall take precautions to ensure all measures are taken to protect themselves, fellow staff, patients and visitors from contact with contaminated sharps.
 - .2. The user shall be responsible for proper sharps disposal.
 - .3. Used sharps shall not be left on furniture, concealed on trays, in beds, wrapped in linens, etc.
 - .4. Disposable syringes with or without needles, scalpel blades, and other sharp items shall be placed intact into hospital provided, puncture-resistant, approved sharps containers.
 - .5. Sharps containers shall be located as close as practical to the area in which sharps are used or can be reasonably anticipated to be found.
 - .6. Sharps containers shall be maintained in an upright position throughout use.

- .7. Sharps containers shall be replaced routinely and not allowed to exceed the manufacturer fill line.
- .8. Contaminated sharps shall be discarded in containers approved by the Hospital Safety Committee that meet the following criteria:
 - .8.1. Closable in order to ensure that contaminated sharps remain inside the disposal unit while it is being transported and handled prior to disposal.
 - .8.2. Puncture resistant to prevent the points of needles or other sharps from puncturing the container and protruding through the side of the container where they can present hazard to unsuspecting staff.
 - .8.3. Leak proof on the sides and bottom to prevent residual liquids from leaking.
 - .8.4. Labeled or color-coded which serves essentially two purposes:
 - .8.4.1. It is easily identified by staff.
 - .8.4.2. All departments understand the meaning of the readily recognizable label or color.
 - .8.4.3. These labels shall be fluorescent orange or orange-red, with lettering or symbols in a contrasting color.
 - .8.5. Red containers are often used to signify a biohazard.
 - .8.6. Appropriate size for volume of use/need.
 - .8.7. Disposable, sharps containers are designed for one-time use only.
 - .8.8. Reusable sharps containers are processed according to vendor specifications.
 - .8.9. Contaminated needles and other contaminated sharps shall not be bent or removed, unless such action is required by a specific medical procedure.
 - .8.10. Recapping or needle removal related to a medical procedure must be accomplished through the use of a mechanical device or a one-handed technique.
 - .8.11. Reusable sharps that are contaminated with blood or other potentially infectious materials shall not be stored or processed in a manner that requires employees to reach by hand into the containers where these sharps have been placed.
 - .8.12. Immediately or as soon as possible after use, contaminated reusable sharps shall be placed in appropriate containers until properly reprocessed.
 - .8.13. When moving containers of contaminated sharps from the area of use, the containers shall be:
 - .8.13.1. Closed immediately and sealed/locked prior to removal or replacement to prevent spillage or protrusion of contents during handling, storage or transporting.
 - .8.13.2. Placed in a secondary container if leakage is possible.
 - .8.14. If the sharps container is disposable then place the closed sealed sharps container in an ASTM lined vendor provided receptacle

- .8.15. If the sharps container is designed to be reusable then the container must be sealed and placed in an area predetermined by EH&S and in conjunction with the medical waste treatment vendor as well as the user
- .8.16. If outside contamination does occur, it shall be placed in a second container.
- .8.17. Removal and replacement of sharps containers (needle boxes) shall be the shared responsibility of all staff. All staff shall:
 - .8.17.1. Monitor each sharps container located in the area and remove/replace the container before it is overfilled.
 - .8.17.2. All sharps containers shall be sealed/locked before removal from area of use.
 - .8.17.3. All sealed sharps containers shall then be deposited in the designated area for removal by Environmental Services,
 - .8.17.4. If the sharps container becomes overfilled, staff shall wear gloves and use an item such as a hemostat to transfer sharps that are protruding from the container, preventing the closure of the lid.
 - .8.17.5. Maintain an adequate supply of empty sharps containers in the area.
- .9. In the event of an exposure involving contaminated sharps, the following steps shall be taken by staff:
 - .9.1. Notify Employee Health or Needlestick Team (after hours).
 - .9.2. Report the incident to your immediate supervisor.
 - .9.3. Complete an incident report (Incident Report for Staff/Visitors).

II. **Collection of Untreated Waste**

- A. Medical and surgical waste will be separated from non-medical waste and placed into designated and approved medical waste containers at the point of generation, i.e., patient rooms, surgical suites, patient treatment areas, laboratories, etc. The specific criteria to make the separation of medical vs non-medical waste will be in accordance with the definition as stated in Section I of this document.
- B. Medical waste (except sharps) will be placed in red, plastic bags (usually 35 gallon capacity). ASTM-D tested red transport container liners containing medical waste will be properly and completely secured into labeled, designated transport containers (Stericycle TB01s/gray bins). Sharps (see definitions) will be placed into leak proof, rigid, puncture resistant containers (approved sharps containers) and sealed to prevent loss of contents (ADEM 335-17-1-.02). The outermost container for medical waste shall meet state and federal regulations and be conspicuously labeled with the words “Medical Waste” or “Bio-Hazardous” or “Infectious” and/or

contain the International Biological Hazard Symbol, UAB Generator address and accumulation start date.

C. In research areas medical waste shall be securely located away from traffic flow.

III. **Identification of Medical Waste**

Medical waste contained in sealed, red, plastic bags and sharps containers will be placed in transport containers with covers which are rigid, puncture resistant, and leak resistant and prepared for pickup by UAB's contractor. In UAB Hospital areas, medical waste will be moved to collection points in and adjacent to the UAB hospital(s) for temporary storage before being picked up by UAB's contractor. The outside container will be identified by bar codes which will contain the name and address of the generator (UAB) and the date the medical waste was moved to the pickup location or if temporary storage is utilized (see definition below), prior to pick up by UAB's contractor.

All secondary containers, carts, or transport vehicles used in the collection or movement of medical waste within the labs, departments or units shall be identified and decontaminated as appropriate by the user.

IV. **Temporary Storage of Untreated Medical Waste**

"Storage" as used in this sense would mean storage of the packed containers outside of laboratories, clinical/patient rooms and operating rooms prior to pickup by UAB's contractor.

Temporary storage for UAB Hospital will be accomplished at the solid waste compactor buildings. These buildings will be single-purpose (waste handling) for the purpose of this plan. The Medical Waste Temporary Holding Facilities will be identified by contrasting color signage specifying "Medical Waste". The "facilities" will be capable of full closure and will be secured and locked when not attended. Floors and wall surfaces which may come in contact with medical waste will be cleaned with a germicidal soap solution on a weekly schedule. The management of this facility will be under the direction of the Director of University Hospital Environmental Services (205) 934-4782.

The Medical Waste Temporary Storage Facility premises will be included in the UAB (Hospital) pest control contract coverage for insects and vertebrate pests.

Any UAB employee whose duties require exposure/contact with medical waste in any form will be furnished with and required to wear gloves and such other protective clothing as required by their department supervisor(s).

Hospital units and departments should avoid holding medical waste in any temporary holding area on UAB Hospital premises longer than six (6) days before pickup by UAB or its contractor where treatment will be rendered by appropriate methodology. When temporary holding areas are used, they are to be clearly identified and secured.

Temporary storage of medical waste at campus buildings will take place outside of laboratory areas in designated rooms securely locked when not attended.

UAB shall maintain records for three (3) years. UAB EH&S will maintain transport/treatment records for campus locations. Hospital Environmental Services will maintain records for UAB Hospital. This information will include the name and location of the generator, i.e., UAB Hospitals, Birmingham, Alabama.

V. Transportation of Untreated Waste to Treatment Facility

Any medical waste collection, transport or disposal company contracted by UAB must meet all local, state, and federal requirements and provide copies of permits to EH&S.

Certain categories of medical waste (eg, Ebola, CJD, SEBLAB) Ted, Judy wanted to link our Ebola and CJD plans here) may be transported from several collection sites on the contiguous UAB campus and medical center to the EHS Support Facility for incineration at the following location:

University of Alabama at Birmingham
700 7th Ave S
Birmingham, AL 35294
(205) 934-3797
Contact: Anton Jones, Manager of Hazardous and Regulated Materials

For management of Select Agent waste, contact UAB EH&S at 205-934-2487.

Transportation of medical waste will be performed by the current UAB medical waste contractor.

VI. Education and Training

A. An education program designed to provide information about the types of medical waste encountered in the workplace and identify appropriate procedures, personal protective equipment, and precautions used for handling and disposing of medical waste in accordance with UAB, the Alabama Department of Environmental Management and the US Department of Transportation requirements is available through the UAB Department of Environmental Health & Safety to all employees who manage

or have contact with medical waste. This training must be renewed every 3 years.

- B. Consultation and response to questions regarding medical waste issues will be provided on request by contacting UAB EH&S at 205-934-2487.

VII. Coordination and Implementation of Medical Waste Management

- A. The UAB Medical Waste Management Plan is designed to be in compliance with local, state, and federal regulations. The UAB Department of Environmental Health & Safety in conjunction with the Institutional Biosafety Committee and other affected parties reviews and revises the plan yearly and as regulations and guidelines mandate.
- B. Any modifications to this plan are to be reviewed by the UAB Department of Environmental Health & Safety. Container approval must be coordinated through the UAB Department of Environmental Health & Safety's Biosafety Program.

References:

Alabama Department of Environmental Management Land Division-Solid Waste Program, Division 17, Code 335-17, January 2012.

US Department of Transportation Hazardous Materials Regulation 49 CFR 173.134

REVIEW SCHEDULE

Implementation Date: _____

Review Date	Updated	Biosafety Officer
	Yes No	
	Yes No	
	Yes No	
	Yes No	
	Yes No	
	Yes No	