


Infection Control Manual		
	Policy Name	Guidelines for Disposal of Regulated Medical Waste
	Policy Number	IC 0054
	Date this Version Effective	March 2017
	Responsible for Content	Hospital Epidemiology

I. Description

Describes infection control rules and regulations for the management of regulated medical waste.

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II. Rationale

Health care facilities are required to follow state and federal rules and regulations for transport and disposal of medical waste to reduce the risk of disease transmission within the health care facility and to the greater community.

III. Policy

A. North Carolina Waste Management

1. The North Carolina Solid and Hazardous Waste Management Branch developed rules relating to the disposal of regulated medical waste in sanitary landfills. The types of medical waste designated as regulated medical waste are microbiological waste, pathological waste, and blood products.
2. The following are approved methods of treatment of infectious wastes prior to disposal in a sanitary landfill: microbiological wastes – steam sterilization or incineration; pathological wastes (human tissue, organs, and body parts) – incineration; and blood products (includes blood, serum, plasma, emulsified human tissue, spinal fluid, pleural and peritoneal fluids) – incineration or sanitary sewer. Refer to Administrative Policy 0038 Custody of Internal Body Tissue, Organs or Body Parts for management of pathological wastes such as placentas.
3. Sharps (defined as needles, syringes with attached needles, capillary tubes, slides and cover-slips, and scalpel blades) may be incinerated or placed into the sanitary landfill after placement in a rigid puncture-proof container. Sharps with an activated safety device (e.g., safety scalpel, protective IV catheter, needle with safety cap) are classified as sharps and must be disposed of in an appropriate sharps container.
4. The following UNC Health Care practices are developed to comply with the North Carolina rules governing regulated medical waste and should lead to the disposal of regulated

medical waste in a safe, efficient, environmentally sound, and cost-effective manner. (See Appendix 2 for specific requirements for generators of regulated medical waste.)

B. UNC Health Care Practices

1. All microbiological wastes (cultures and stocks of etiologic agents) except mycobacterial isolates and possible select agents of bioterrorism are placed in red bags and incinerated. Mycobacterial isolates/possible select agents of bioterrorism are steam sterilized before disposal in general hospital waste.
2. All anatomical pathology wastes are placed in an appropriately marked disposal container (red bag labeled with BIOHAZARD label) and picked up by the contract incinerator service.
3. Tubes containing small volumes (≤ 20 mL per individual container) of blood and blood products from the Hospital Laboratories will be placed in containers indicated for incineration.
4. All other laboratory solid waste (except bulk blood and pathological waste) may be placed in a regular trash receptacle (white bag with BIOHAZARD label) and discarded in general hospital waste.
5. Discard sharps to include needles, needles with attached syringes, sharps with activated safety devices, cover-slips, slides, capillary tubes, scalpels, and disposable razors in the appropriate containers (i.e., rigid, puncture resistant and leak-proof when in an upright position). Needles should not be bent, cut or recapped. When the sharps disposal container contents are visible at the window in wall mounted units or contents are 1-2 inches from the top (i.e., $\frac{3}{4}$ full) in countertop units or portable units on wheels, it may be disposed of in the designated regulated medical waste container. The needle disposal unit top must be securely closed before disposing in the proper container.
6. Small volumes (≤ 20 mL per individual container) of blood and blood products from nursing units and outpatient clinics will be disposed of in regular trash receptacles and discarded with general hospital waste. Bulk (> 20 mL per individual container) blood or blood products can be discarded by carefully pouring the fluid down a clinical sink, not a handwashing sink, (e.g., hopper or non-hand washing sink in soiled utility room) using personal protective equipment (i.e., gloves, face protection and gown) if indicated. If > 20 mL of blood or bloody fluid remains in blood transfusion bags or tubing, it will be disposed of in the regulated medical waste container. Empty bulk blood and blood product containers (e.g., bags and bottles) and tubing may be disposed of in a regular trash receptacle. Bulk blood which cannot be safely emptied (e.g., pleurevacs, evacuated containers, hemovacs) will be disposed of in the regulated medical waste container.
7. Suction canisters and other containers (e.g. urine drainage bag) containing patient secretions, body fluids and/or blood ($>$ than 20mL per container) should be discarded by carefully pouring fluid down a hopper or clinical sink (e.g., hopper or non-hand washing sink in soiled utility room) and the containers placed in the regular trash.
 - a. Suction canisters from the OR are emptied via a fluid disposal system (e.g. Saf-T-Pump). Alternatively, the canister may be securely closed and placed in an upright position in a regulated waste container lined with two red bags.
8. Emptied IV fluid bags and blood transfusion bags/sets with less than 20mL of blood should be placed in the non-regulated medical waste. To comply with HIPAA, patient identifiers should be removed prior to disposal. Refer to Administrative Policy 0056: Hard Copy and Electronic Information Disposal regarding patient identifiers.
 - a. Disposal of regular and hazardous pharmaceuticals and chemotherapeutic drugs/tubings should not be discarded in medical regulated waste container but in the appropriate

designated container. Refer to EHS 0024: Handling and Disposal of Hazardous Drugs Policy (Antineoplastic, Biologic, Cytotoxic and Immunosuppressant Drugs). A list of hazardous/chemotherapeutic drugs, and disposal methods (i.e. black and yellow bins), can be found in EHS 0024

9. Containers of sterile fluids (>20 mL per container), such as unlabeled tube feedings or saline bags which do not have patient identifiers, must be emptied before placement in the regular trash. Empty fluids into a hopper, or a handwashing sink if a hopper is not available. Then, flush the sink with copious amounts of water. Sterile fluids, not used for patient care, can be discarded by carefully pouring down a handwashing sink. Solid wastes from isolation rooms and operating rooms (other than blood/body fluids >20 mL per unit vessel, pathological waste, and sharps) are non-regulated waste and may be placed in a regular trash receptacle and discarded with general hospital waste.

10. Waste Containers

- a. Regulated Medical Waste. Containers will display a BIOHAZARD label and will be lined with a red bag and placed in the soiled holding/utility room. Only regulated medical waste should be placed in these containers. See Appendix 1, Regulated Waste Management Plan, for a list of items classified as regulated medical waste.
- b. All non-regulated medical waste will be placed in a white bag with a BIOHAZARD label. All waste receptacles in clinical areas will display the universal biohazard label (e.g., biohazard sticker on the outside of trashcan). Psychiatry units will use brown paper bags which are placed in trashcans that have a biohazard label on the outside.

11. Waste Removal

- a. Waste will be picked up by Environmental Services at least once daily and as needed (i.e., if containers are becoming over-filled, contact Environmental Services for additional pickups or additional containers).
- b. Trash receptacles which have a reasonable likelihood for becoming contaminated with blood or other potentially infectious materials will be decontaminated on a routine basis (e.g. daily, weekly) with an EPA-registered germicidal solution or as soon as feasible when visibly contaminated.
- c. Regulated Medical waste is managed by a contracted company, which removes the bins from the hospital and cleans them offsite. Environmental Services is responsible for supplying the bins to the units and are responsible for picking them up.
- d. Sharps containers will be checked by Environmental Services staff daily and replaced if contents are visible at the window in the wall-mounted units or when contents are 1-2 inches from the top in countertop units. Nursing personnel also monitor and change sharps containers as needed.

12. The following guidelines must be followed for disposable items designated for collection by volunteer organizations/groups that collect and recycle medical supplies for developing countries (e.g. MedWorld).

- a. Medical supplies opened and unused should be placed in a designated, labeled collection container.
- b. No used needles or other sharp hollow-bore devices should be recycled.

C. Cleaning of Equipment

Transfer carts used for transporting infectious waste inside the hospital should be cleaned by Environmental Services personnel with a EPA-registered germicidal detergent weekly and immediately or as soon as feasible when visibly contaminated with blood.

D. Policy Implementation

The Director of Environmental Services in cooperation with the Hospital Epidemiology Department will be responsible for monitoring and implementing this policy.

IV. Reference

I5A NCAC 13B .1200. NC Medical Waste Management Rules. Effective 1 October 1990; amended Eff. April 1, 1993.

V. Reviewed/Approved by

Hospital Infection Control Committee

VI. Original Policy Date and Revisions

Dec 2005, Feb 2008, Feb 2011, Mar 2014, Mar 2017

Appendix 1: Regulated Waste Management Plan

Type of Waste	Regulated Medical Waste	Non-Regulated Medical waste	Type of Waste
	Incineration (i.e., “red bag trash”)	Sanitary Sewer	Sanitary Landfill (i.e., “white bag trash”)
Mycobacterial isolates/Select agents of bioterrorism after steam sterilization			X
All other microbiological waste	X		
Anatomical pathology	X		
Blood, small volumes ≤ 20 ml/container			
from Hospital Laboratory	X		
not from Hospital Laboratory			X
Bulk blood, blood products, >20 ml in container that cannot be emptied	X		
Bulk blood, blood products, >20 ml discarded by pouring down clinical sink		X	
Blood contaminated items			X
Blood product transfusion bags and tubing			
contains >20 ml bloody fluid	X		
contains ≤ 20 ml bloody fluid			X
Suction canister waste		X	
Emptied suction canister			X
Sharps (e.g., needles, scalpels, etc.) in the appropriate locked containers	X		
Other non-regulated medical waste, including waste from isolation rooms, OR, and ICU			X

Appendix 2: Requirements for Regulated Medical Waste

I. Requirements for Generators of Regulated Medical Waste

- A. Regulated medical waste sent from UNC Hospitals for off-site treatment shall meet the following requirements:
 - 1. Regulated medical waste shall be packaged in a red polyethylene or equivalent bag and placed in a rigid fiberboard box, drum, or other rigid container constructed in a manner that prevents leakage of the contents.
 - 2. Regulated medical waste shall be stored in a manner that maintains the integrity of the packaging at all times.
 - 3. Each package of regulated medical waste shall be labeled with a water-resistant universal biohazard symbol.
 - 4. Each package of regulated medical waste shall be marked on the outer surface with the following information:
 - a. The generator's name (UNC Hospitals), address and telephone number.
 - b. The transporter's name, address and telephone number.
 - c. Storage facility name, address and telephone number when applicable.
 - d. Treatment facility name, address and telephone number.
 - e. Date of shipment and
 - f. "INFECTIOUS WASTE" or "MEDICAL WASTE"
- B. Records of regulated medical waste shall be maintained for each shipment and shall include the informational listed below. This information shall be maintained at UNC Hospitals for no less than three (3) years.
 - 1. Amount of waste by number of packages (piece count)
 - 2. Date shipped off-site
 - 3. Name of transporter
 - 4. Name of storage and/or treatment facility

II. Requirements for Transporters of Regulated Medical Waste

- A. The transporter of our hospital's regulated medical waste shall document to the hospital that they meet all the transporter requirements for regulated medical waste (.1205).

III. Requirements for Storage of Regulated Medical Waste

- A. Waste that has not been treated at the hospital shall meet the following requirements.
 - 1. Regulated medical waste shall be stored in a manner that prevents leakage of the contents of the package
 - 2. Regulated medical waste shall be stored in a manner that maintains the integrity of the packaging at all times.
 - 3. The labeling and marking of the package required above (I. A. 4.) shall be maintained at all times.
 - 4. Regulated medical waste shall not be stored longer than seven (7) calendar days from the date of shipment from the generator unless the regulated medical wastes is refrigerated at an ambient temperature between 35°F-45°F.
 - 5. Only authorized personnel shall have access to areas used to store regulated medical waste.
 - 6. All areas used to store regulated medical waste shall be kept clean. Vermin and insects shall be controlled.
 - 7. All floor drains shall discharge directly to an approved sanitary sewage system. Ventilation shall be provided and shall discharge so as not to create nuisance odors.

IV. Operational Requirements for Regulated Medical Waste Treatment.

- A. The person/company who treats our regulated medical waste shall meet the specified requirements in .1207 of the North Carolina Medical Waste Rules.
- B. Steam sterilization of microbiological waste shall be conducted at 250°F for 45 minutes.