



## SMMC Waste Protocol

**KEYWORDS:** Waste, BioHazard, Cytotoxic, General Waste, Waste Stream, Protocol

**SCOPE:** All SMMC Personnel, Contracted Medical Waste and General Waste Companies, Housekeeping

**SKILL LEVEL:** SMMC Personnel

**PURPOSE:** The purpose of this policy is to develop a system that addresses the identification, selection, handling, storage, use, and route of disposal of infectious, chemical, and general waste streams.

### PROTOCOL

- I. KEY POINTS:** In order to manage disposal of hospital waste responsibly, and reduce the health risks associated with infectious waste, ensure SMMC personnel is informed of correct handling, storage, and disposal of all waste streams (See Attachment A- SMMC Waste Stream Chart). To achieve this, it is necessary to ensure the following:
- SMMC produced waste must be separated by streams according to their definitions (see Attachment A- SMMC Waste Stream Chart).
  - All hospital waste must be safely handled and transported.
  - All hospital waste must be stored and disposed of correctly.
  - Managers, Supervisors and Staff are aware of their responsibilities and receive training appropriate to their tasks when handling, storing and disposing of all types of waste.
  - Human tissue clinical waste (**yellow**) is bagged and refrigerated at SMMC, then transported for incineration at the funeral home.
  - Clinical waste sharps and non-sharps waste (**red**), which is potentially infectious waste, is treated onsite at SMMC through an integrated grinding and sterilization by microwave process (Sterilwave 250).
  - Cytotoxic chemical and laboratory sharps (sharps-**blue**) and non-sharps waste (clear bags labeled chemotherapeutic agent) is collected by a contracted waste facility.
  - Regular waste (paper and other) is placed in the compactor and then collected by a waste disposal company.
  - All waste streams are appropriately handled, collected, separated and stored in a suitable place away from general circulation routes (e.g. sluice or dirty utility rooms) to await collection, or moved directly into the final storage location within the SMMC medical waste bio-rooms.
- II. DEFINITIONS:**
- Infectious waste:**
    - Human Tissue Clinical Waste – Also referred to as pathology or anatomy waste- consisting wholly or partly of human tissue or body parts, including placentas and amputations.
    - Infectious Clinical Waste- waste produced from healthcare and similar activities that may pose a risk of infection, for example, materials consisting of blood or body fluids, drugs or other pharmaceutical products, swabs, dressings or syringes, needles or other sharp instruments, being waste which, unless rendered safe, may prove hazardous to any person coming into contact with it. This includes any other waste arising from medical, nursing, pharmaceutical or similar practice, treatment, care, or the collection of blood for blood transfusion being waste that may cause infection to any person coming into contact with it.
  - Chemical Waste:**
    - Cytotoxic medications - Pharmaceutical chemicals, sometimes known as antineoplastics, describe a group of medicines that contain chemicals which are toxic to cells preventing their replication or growth, and so are used to treat cancer. They can also be used to treat a number of other disorders such as rheumatoid arthritis and multiple sclerosis.



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### c. Regular Waste:

- i. Domestic/household waste- consisting of general domestic waste collected from non-patient areas (e.g. offices, food from kitchen, etc.)
- ii. Shredded confidential documents
- iii. Furniture, scrap metal, etc.
- iv. Building material waste

### III. GUIDELINES/INTERVENTIONS:

#### a. Necessities for this protocol include:

- i. Yellow Biohazard Bags
- ii. Red Sharps Containers
- iii. Red Biohazard Bags
- iv. Blue Sharps Containers
- v. Clear Chemical Hazard Bags (labeled chemotherapy waste)
- vi. Black Regular Garbage Bags
- vii. Clear White Regular Garbage Bags
- viii. Medical waste bio-rooms
- ix. Storage Bins with Lids for medical waste bio-room
- x. Freezer (for Human Tissue Clinical Waste)
- xi. Sterilwave 250 (grinder-microwave)
- xii. Suitable trolleys (for transport)
- xiii. Contract with licensed medical waste company for collection and disposal of cytotoxic chemical/laboratory waste.
- xiv. Contract with licensed regular waste company for collection and disposal of grinder microwave (Sterilwave) processed waste.

#### b. Precautions:

- i. Ensure that bags are not overfilled.
- ii. Ensure bags are tied.
- iii. If bags are torn, they should be double-bagged.
- iv. To prevent percutaneous injuries, personnel must never use their hands to compress waste in containers. Plastic bags shall be handled from the top and not be in contact with the body.
- v. The Bio storeroom should be restricted to authorized employees only.

#### c. Methods

- i. **Human Tissue Clinical Waste (Pathology and Anatomy): body parts, placentas, amputations, removed implants.** Staff should separate this waste by disposing it in a **YELLOW** clinical waste bag. This must be transported by housekeeping staff or an assigned staff member, and stored in the freezer located in the medical waste bio-room, until collection by a licensed company for incineration (December 2018 initiated using the funeral home for this purpose).
- ii. **Clinical Infectious Waste: used sharps, used catheters, and all other waste contaminated with blood or body fluids.** Staff should separate this waste by disposing it in a **RED** clinical waste bag on site. This must be transported and stored in the appropriate plastic bins provided in the medical waste bio-room by housekeeping staff or an assigned staff member, until processed by approved SMMC grinder/microwave (Sterilwave 250) operators.
  1. Sharp instruments, needles, etc. must be placed in a RED sharps container. Containers should only be filled to the indicated level (as per manufacturer's instructions) and then firmly closed and put in RED bag.
- iii. **Cytotoxic Chemical waste- (pharmaceutical and laboratory).** Cytotoxic chemical waste must be labeled correctly and accompanied by the chemical substance data sheets of chemicals that are offered for processing.
  1. Cytotoxic waste sharps containers (**BLUE**) and bags (**CLEAR & MARKED CHEMOTHERAPEUTIC**) are marked by the department that generates the waste. (e.g. if coming from pharmacy, label pharmacy; if coming from IV treatment room, label IV treatment room) as pharmacy chemo waste is processed at higher temperatures.
- iv. **Regular paper and other domestic waste-** This will be collected in clear white or black polythene bags or and will be disposed in a bin suitable for domestic household waste in the on-site sluice or waste area. They will be transported by housekeeping to the garbage area at the back of the hospital and placed in the compactor provided to await collection.



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1. **Paper waste-** Includes tissues, paper towels, other paper items.
2. **Shredded Confidential documents-** ensure confidential documents are shredded before being bagged.
- v. **Waste from construction activity-** controlled waste and should be disposed of appropriately. The Maintenance Department should ensure that disposal of waste is considered in contracting process.
- vi. **Exception:** If Pathology and Anatomy Waste or Clinical Waste is received from a patient admitted under the Ebola Virus Disease (EVD) Protocol, the waste bags will be sprayed with strong chlorine after closing, double bagged and marked as indicated by the SMMC Quick Response Team. Handling requires staff to wear additional PPE as indicated by EVD Protocol until double bagging is completed. Disposal and incineration will be explicitly coordinated with the waste facility.
- d. Complications
  - i. Biological contamination of surfaces
  - ii. Biological airborne contamination
  - iii. Insect and rodent infestation

IV. DOCUMENTATION: N/A.

V. PATIENT EDUCATION: N/A.

VI. ATTACHMENTS:

Attachment A- SMMC Waste Stream Chart

VII. REFERENCES:

Safework NSW (2017). Cytotoxic Drugs and Related Waste-Risk Management. Retrieved from:  
[http://www.safework.nsw.gov.au/data/assets/pdf\\_file/0005/287042/SW08559-Cytotoxic-drugs-and-related-risk-management-guide.pdf](http://www.safework.nsw.gov.au/data/assets/pdf_file/0005/287042/SW08559-Cytotoxic-drugs-and-related-risk-management-guide.pdf).

VIII. RESPONSIBILITIES:

- a. The Hygiene and Infection Control Committee approves the content of this protocol.
- b. HIC, Facility Manager, Storeroom Supervisor, and Quality and Safety will collaborate to ensure all Department Supervisors are fully trained and take responsibility for implementation of this protocol.
- c. Heads of Departments are responsible for ensuring complete adherence to this protocol.
- d. Delegated responsibility for the day-to-day management and technical section of this protocol is the responsibility of the Manager Facilities who will:
  - Accept the day-to-day management responsibility for key tasks described in this protocol.
  - Appoint appropriately qualified staff.
- e. Supervisors must ensure that their department is responsible for identifying and labeling all waste streams appropriately within their department/area and wearing appropriately required personal protective equipment (PPE) according to waste stream.

**REVISION:** SMMC reserves the right unilaterally to revise, modify, review, rescind or alter the terms and conditions of this policy within the constraints of the law, by giving reasonable notice.

**DISCLAIMER:** This policy and implementing procedures are intended to provide a description of recommended courses of action to comply with local laws and operational standards. It is recognized that there may be specific circumstances, not contemplated by laws that makes compliance inappropriate. For advice in these circumstances, consult with the relevant manager of the department.

## SMMC Waste Protocol

Date of Origin: January 6, 2013

Revision Date(s): October 29, 2019

Next Review Date: October 29, 2021

### APPROVED BY:

Manager of Facilities

*[Signature]*



Date:

*30/10/2019*

Medical Director

*[Signature]*



Date:

*1/11/2019*



**Attachment A- SMMC Waste Stream Chart**

Attachment A- SMMC Waste Stream Chart										Regular Waste
DEPARTMENTS	ROUTE OF DISPOSAL	TYPE OF WASTE	Infectious Waste			Cytotoxic Chemical Waste		Paper & Other		
			Human Tissue Clinical Waste	Clinical Waste		Cytotoxic Chemical or Laboratory Waste				
			Anatomy or Pathology	Sharps	Non-sharps	Sharps/glass	Non-sharps & non-glass			
			YELLOW bags	RED sharps container	RED bags	BLUE sharps container	Chemotherapy specific labeled bags- CLEAR			
OR OB/GYN Delivery Room	Refrigerated at SMMC, then transported to funeral home for incineration	Body parts and placenta	x						Clear WHITE or BLACK bags	
		Pathology and Anatomy waste (human tissue waste)	x							
		Removed Implants	x							
	Sterilwave treated, then collected by contracted waste company	Injection Needles & Syringes		x						
		Lancets		x						
		Suture Needles		x						
		Scalpel Blades		x						
		Glass Tubes/Vials		x						
		Medication/Vaccine Vials (non chemo)		x						
		Glass Ampules		x						
		Rigid IV Catheters & Needles		x						
		Trocars		x						
Inpatient Wards, Outpatient Dpt, Hemodialysis, DR, ER, Radiology	Sterilwave treated, then collected by contracted waste company	Hemodialysis Dialyzer				x				
		Used Foley Catheters & Urine Bags				x				
		Used Gloves, Gowns, Masks contaminated with blood & body fluids				x				
		Used Gauze or Dressings contaminated with blood or body fluids				x				
		Used Diapers				x				
		Pleur-e-vac & Hemovac				x				
		Suction Canisters				x				
		Used IV Lines and Bags				x				
		Blood Transfusion Bags				x				
		Disposable Suction Catheters				x				
		Used E.T. Tubes				x				
		Pharmacy  IV Treatment Room Laboratory Radiology  Wards where IV chemo is provided	Stored at SMMC, then collected by contracted & certified cytotoxic waste facility for disposal	Sharps & syringes cytotoxic chemical waste (including chemo)				x		
Cytotoxic medication vials (expired/used)						x				
Non-sharp cytotoxic chemical waste (IV bags/tubing)							x			
Cytotoxic laboratory specimens										
Contrast dye waste								x		
ALL DEPARTMENTS	(compactor then collected by waste disposal company)  Items that pose no threat or risk to the public health, safety or the environment and are deemed disposable without controls to the landfill or sewer.	Personal protective equipment used to handle cytotoxic waste							x	
		Tissues, paper towels, paper								x
		Shredded confidential documents								x
		Packaging and Empty Cartons								x
		Plates								x
		Cups								x
		Utensils								x
Food and Food Packaging									x	