

Hospital Biomedical Waste Management Policy

1. Purpose

This policy defines the framework and responsibilities for the safe, effective management of biomedical waste (BMW) generated within our hospital. Proper segregation, transportation, treatment and disposal of BMW is essential to minimise risk of hospital-acquired infections, protect staff, patients, visitors and the environment, and comply with statutory requirements under the Bio-Medical Waste Management Rules, 2016 (BMW Rules 2016) and Haryana State Pollution Control Board (HSPCB) notifications.

2. Scope

This policy applies to:

- All clinical care areas (wards, ICU, OT, emergency, labs) of the hospital.
- All categories of biomedical waste generated in the hospital (anatomical, soiled, sharps, laboratory waste, chemical waste, etc.).
- All staff involved in generation, handling, transport, storage and disposal of BMW.
- Outsourced vendors (Biomedical Waste Treatment Facility – Biotic Waste Limited) engaged for treatment & disposal.

3. Statutory & Accreditation Requirements

- The hospital operates in compliance with the BMW Rules 2016, as amended, applicable to all health-care establishments.
- The hospital has obtained valid authorisation from the HSPCB for handling biomedical waste (generation, storage, transport, treatment).
- The hospital adheres to NABH standard IPC requiring documented policy, segregation, safe transport and disposal.
- The hospital maintains documentation, monitoring, and reporting as per accreditation and regulatory requirements.

4. Roles & Responsibilities

- **Hospital Management / Governing Body:** Provide resources (staffing, equipment, training) for BMW management; ensure policy enforcement.
- **Infection Control Committee (ICC) / Hospital Infection Control Cell (HIC):** Monitor compliance, conduct audits, report non-conformities, organise training.
- **Department Heads:** Ensure segregation at source, availability of colour-coded bins, PPE for staff.
- **Housekeeping / Waste Handling Staff:** Follow the segregation, collection, transport, storage procedures; use PPE; report spills or incidents.
- **Outsourced Vendor:** Provide documented agreement; ensure proper treatment, transportation, disposal, and records; meet HSPCB authorised facility requirements.

5. Waste Segregation, Collection & Storage

5.1 Colour-Coding & Bag/Container Specifications

In alignment with BMW Rules 2016 and hospital practice, the following categories apply:

CATEGORY	TYPE OF WASTE	TO BE COLLECTED IN
YELLOW	Human Anatomical Waste	Yellow colored non chlorinated plastic bags
	Animal Anatomical Waste	Yellow colored non chlorinated plastic bags
	Soiled Waste	Yellow colored non chlorinated plastic bags
	Discarded linen, mattresses, beddings contaminated with blood or uid□body	Non-chlorinated yellow plastic bags or suitable packing material
	Expired or Discarded Medicines	Yellow colored non chlorinated plastic bags
	Chemical Waste	Yellow coloured containers or non chlorinated plastic bags
	Chemical Liquid Waste	Separate collection system leading to effluent treatment□ system
RED	Microbiology, Biotechnology and other clinical laboratory waste	Autoclave safe plastic bags or containers
	Contaminated Waste (Recyclable)	Red colored non chlorinated Plastic bags or containers
WHITE (TRANSLUCENT)	Waste sharps including Metals	Puncture proof, leak proof, tamper proof containers
BLUE	Glassware	Blue colored container or Cardboard boxes with blue colored marking
	Metallic Body Implants	Blue colored container or Cardboard boxes with blue colored marking

5.2 Segregation at Source

- Segregation must occur at the point of generation (wards, operation theatre, pathology lab).
- Bags or containers must be labelled, and never mixed with general waste.
- Bags must not be over-filled (e.g., up to three-quarters full) and must be sealed/tied and well labelled before transport to storage.
- Sharps must be placed immediately into designated puncture-proof containers; never disposed in red or yellow bags.

5.3 Collection & Internal Transport

- Waste collection should be done on daily basis, or more frequently as required based on generation volume, to avoid accumulations.
- Dedicated trolleys and carts must be used; these should be colour-coded or clearly labelled for BMW only.
- Bags/containers must not be mixed with general waste; general waste collection should be separate.
- Storage areas must be kept locked, labelled, and accessible only to authorised personnel.
- Spillages or damage to BMW bags/containers must be immediately attended to and incident documented.

6. External Transport, Treatment & Disposal

- The hospital has a contract with Biomedical waste collection vendors (as per MOU available with admin dept) for transport, treatment (autoclave/shredding/incineration etc) and final disposal of BMW.
- The contractual vendor must hold valid authorisation under BMW Rules 2016, through HSPCB. [1](#)
- Vehicles used for transport must be appropriately covered, labelled “Biomedical Waste”, and cleaned/disinfected as per standard protocols.
- For chemical liquid waste, the hospital may have an in-house effluent treatment system or send to an authorised facility for disposal.
- The hospital maintains manifest/tracking records of BMW sent out, including quantities, category, date, time, and vendor details.

7. Storage Time Limits

- Anatomical waste, soiled waste, biotechnology/lab waste must be treated/disposed within 48 hours of generation, unless refrigerated storage is provided.\
- No BMW bag should lay beyond 24 hours in an unsecured area, where feasible.

8. Training & Monitoring

- All relevant staff (clinical, housekeeping, waste handlers) must receive induction and periodic refresher training in BMW management, PPE use, spill management, segregation, and emergency response.
- The HIC team conducts daily audits of segregation compliance, weekly review of collection and storage areas, monthly overall audit of transportation/treatment/disposal records.
- Non-conformities must be documented, corrective action taken, and reported to management.

9. PPE & Safety

- Housekeeping and waste-handling staff must wear appropriate PPE (gloves, apron/gown, mask, boots) when handling BMW.
- Sharps containers must remain sealed until destruction.
- Spill kits and disinfectants must be available in waste-handling areas.

10. Documentation & Records

- Maintain records of waste generation (by category), storage, transport, treatment/disposal for a minimum of three years (or as required under HSPCB guidelines).
- Maintain current authorisation copy from HSPCB for BMW management.
- Maintain agreements/contracts with the external vendor.
- Maintain audit logs, training records, incident reports, corrective-action reports.

11. Compliance, Review & Continuous Improvement

- The hospital will review this policy annually, or sooner if regulatory changes occur.
- Non-compliance will trigger corrective action, including disciplinary measures if necessary.
- The hospital will track its performance (waste volume per bed, segregation compliance %, incident rate) and drive improvements.

BIO MEDICAL WASTE MANAGEMENT COLOR CODING INSTRUCTION FOR SEGREGATION AT POINT OF GENERATION						
YELLOW BAG	BLUE BAG / CARDBOARD WITH BLUE LINING	RED BAG	PUNCTURE PROOF, LEAK PROOF TAMPER PROOF CONTAINER	BLACK BIN (Non-Biodegradable Waste) (Dry Waste)	GREEN BIN (Biodegradable Waste) (Wet Waste)	
<ul style="list-style-type: none"> Anatomical Waste Tissue & Organs Soiled Waste Stained Dressing Swabs Cotton Soiled Plaster Caste Mask & Cap Expired Medicine Microbiology, Bio Technology & Others Clinical Lab Waste, Blood Bag (in autoclave safe bag) Soiled जीव विज्ञान, जीव प्रयोगिकी एवं अन्य विविध प्रयोगशाला वेर्ट, अटिकलेप के बाद रक्त बैग 	<ul style="list-style-type: none"> Patient ID Band Glucostrip Yellow Bag with CYTOTOXIC SYMBOL Cytotoxic drugs including all items Cytotoxic Drugs along with ampoules, vials etc. 	<ul style="list-style-type: none"> Unbroken Glass Intact Vials Contaminated Glass Broken 	<ul style="list-style-type: none"> Infected Plastic Waste Gloves Electrodes (इलेक्ट्रोड्स) Shoe Cover (शू कवर) Catheters (कैथेटर) Syringes (सुरिंज के बिना) (without Needles) Vacutainers (without Needles) Urine Bag (युरिं बैग) Tubing (टीबिंग नहीं) Resuples (रिप्युल्स) Plastic Bottles (प्लास्टिक की बोतलें) 	<ul style="list-style-type: none"> All Sharps Needles Styles Scalpels Lancets Blades 	<ul style="list-style-type: none"> Plastic Wrappers Cans Plastic / Glass Water Bottle Aluminum Foil Tetra Pack Urine Bag Tubing Resuples Plastic Bottles 	<ul style="list-style-type: none"> Kitchen Waste (Left over food / fruit peels / egg shells) Flowers / Wood