



Hospital Infection Control Team

AIIMS, Rishikesh

BIOMEDICAL WASTE MANAGEMENT



BIO MEDICAL WASTE

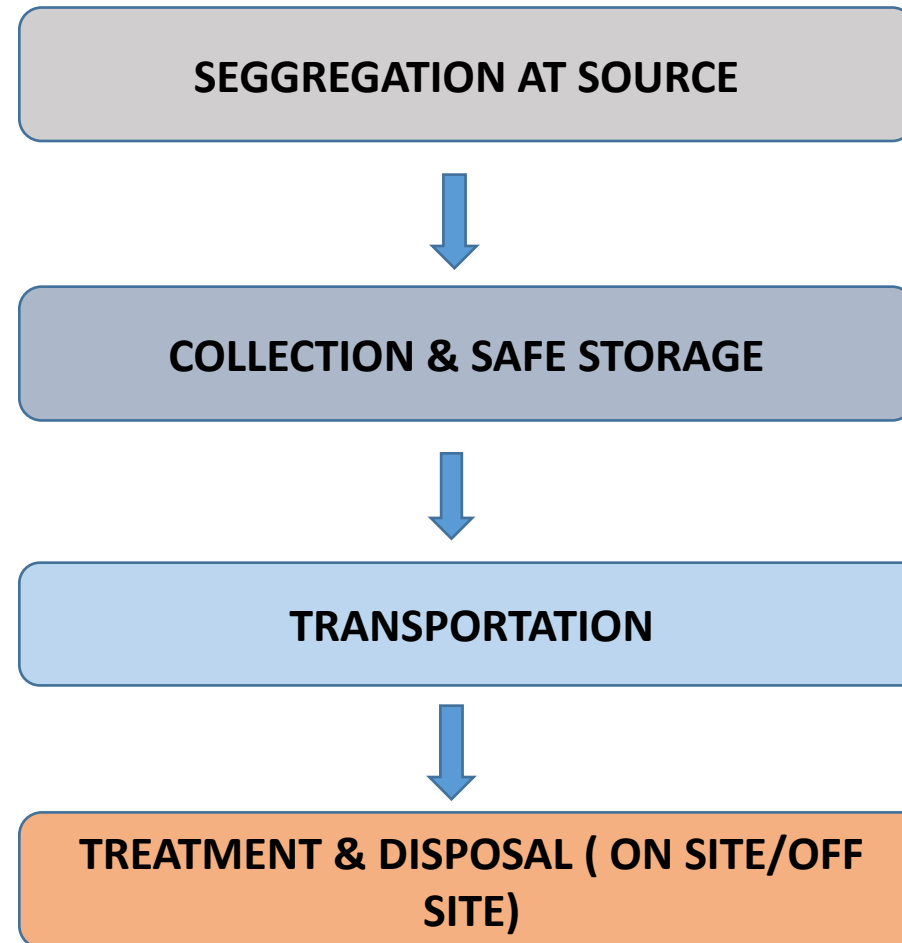
“Bio-medical waste” means any waste, which is generated during the diagnosis, treatment or immunization of human beings or animals or research activities pertaining there to or in the production or testing of biological or in health camps.

- As per BMWWM (Principal) rules 2016 and BMWWM (Amendment) rules 2018, 2019, recent guidelines of Central pollution control board, CDC and WHO IPC update Jan 2020:
- Biomedical waste categories and their segregation, collection and pre-treatment will be done at AIIMS Rishikesh. The final disposal will be done by MPCC, Roorkee.

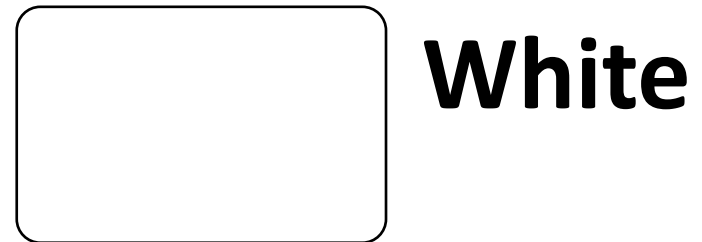
Why BMW management is important?

- Injury(NSI) & infection
- Reuse of disposables
- Environmental contamination
- Animals & insects may get infected/ become carriers
- Survival & mutation of pathogenic microbes→ epidemics, increase in communicable diseases in the community
-many more

Components of bio medical waste management



**Biomedical wastes categories and their
segregation, collection, treatment, processing
and disposal options
(Schedule – I part -1)**



**YELLOW
CATEGORIES**

- INFECTIOUS NON PLASTIC WASTE

RED

- INFECTIOUS PLASTIC WASTE

BLUE CATEGORIES

- BROKEN & UNBROKEN GLASSWARES
- METALLIC NON-SHARPS

WHITE

- METALLIC SHARPS WASTE

Category	Type of waste	Type of bag or container used
Yellow	Human Anatomical Waste: Human tissues, organs, body parts and fetus below viability period	Yellow coloured plastic bags ($\geq 50 \mu$)
	Animal Anatomical Waste : Experimental animal carcasses, body parts, organs, tissues	
	Soiled Waste: Items contaminated with blood, body fluids like dressings, plaster casts, cotton swabs and bags containing residual or discarded blood and blood components. Surgical disposable face mask, caps, gown	

Category	Type of waste	Type of bag or container used
Yellow	<p>Chemical Liquid Waste: Liquid chemicals in production of biological used or discarded disinfectants, Silver X-ray film developing liquid, discarded Formalin, infected secretions, aspirated body fluids, liquid from laboratories and floor washings, cleaning, housekeeping activities</p>	<p>Separate collection system leading to effluent treatment System (ETS)</p>
	<p>Microbiology, Biotechnology and other clinical laboratory waste: Culture plates, devices etc.</p>	<p>Autoclave safe plastic bags or Containers. Sterilization on site, thereafter for incineration.</p>

Category	Type of waste	Type of bag or container used
Yellow	<p>Expired or Discarded Medicines: Pharmaceutical waste like antibiotics, cytotoxic drugs including all items contaminated with cytotoxic drugs along with glass or plastic ampoules, vials etc.`</p>	Yellow coloured plastic bags ($\geq 50 \mu$)
	<p>Chemical Waste: Chemicals used in production of biological and used or discarded disinfectants.</p>	
	<p>Discarded linen, mattresses, beddings contaminated with blood or body fluid.</p>	

Category	Type of waste	Type of bag or container used
Red	Contaminated Waste (Recyclable) Wastes generated from disposable items such as tubing, bottles, iv tubes and sets, catheters, urine bags, Foley's, Ryle's, syringes (without needles and <i>fixed needle syringes</i>) and vacutainers with their needles cut). Nebulisation masks, Shoe cover.	Red colored Plastic bags or containers ($\geq 50 \mu$)

Category	Type of waste	Type of bag or container used
White (translucent)	Waste sharps (metallic sharps) : Needles, syringes with fixed needles, needles from needle tip cutter or burner, scalpels, blades, or any other contaminated sharp object that may cause puncture and cuts. Includes both used, discarded and contaminated metal sharps	Puncture proof, Leak proof, tamper proof containers

Category	Type of waste	Type of bag or container used
Blue	<p>Glassware: Broken or discarded and contaminated glass including medicine vials and ampoules EXCEPT those contaminated with cytotoxic wastes.</p>	<p>Puncture proof and leak proof boxes or containers with blue colored marking</p>
	<p>Metallic Body Implants: Plates and screw</p>	

Disposal of BMW

Category	Type of bag/container	Type of waste	Treatment disposal options
Yellow	Non chlorinated colour coded bags in coloured bins Separate collection system leading to ETP	<ul style="list-style-type: none"> • Human anatomical waste • Animal anatomical waste • Soiled waste • Expired or discarded medicines • Chemical waste • Micro, biotech & clinical lab waste • Chemical liquid waste 	Incineration/deep burial
Red	Non chlorinated plastic bags in coloured bins/ containers	Contaminated waste (recyclable) tubing, bottles, urine bags, syringes (without needles) and gloves	Auto/micro/hydro and then sent to recycling
White	Translucent, puncture, leak & tamper proof	Waste sharps including metals	Auto/dry heat sterilization followed by shredding /mutilation/encapsulation
Blue	Water proof card board boxes/containers	Glassware waste	Disinfection or auto/micro /hydro then sent to recycling

LABEL FOR BIO-MEDICAL WASTE CONTAINERS OR BAGS





ALL INDIA INSTITUTE OF MEDICAL SCIENCES

RISHIKESH, UTTARAKHAND- 249203

BIO MEDICAL WASTE SEGREGATION PROTOCOL

कचरे को सही रंग के बैग में डालें



Yellow Bin

Items contaminated with blood, body fluids

- Human Anatomical waste (organ, body part, fetus etc)
- Routine Mask, Cap & Gown
- Dressings, Bandage, Gauze, Linen
- Soiled Plaster casts, Cotton swabs
- Expired and discarded medicines
- Bags containing residual or discarded blood, blood component include tubing

Cytotoxic Labeled Yellow bin

All Cytotoxic drugs, glass, plastics, ampoules, vials



पीला बैग

रक्त एवं शरीर के द्रव से सजी हुई चीजें

- मानव शरीर रचना सम्बन्धी अवशिष्ट जैसे अंग, उत्तक आदि
- उपयोग करके फेंकने लायक मास्क, कैप एवं गाऊन
- पट्टियाँ, फोहे, रक्त, कपड़े
- गंदे प्लास्टर कास्ट, रुई
- समाप्त अवधि वाली दवाईयाँ
- ब्लड बैग और उसकी टुबिंग

कैंसर सम्बंधित दवाइयाँ, एम्पुल, प्लास्टिक और कांच की झीरियाँ

कैंसर सम्बंधित दवाइयाँ, एम्पुल, प्लास्टिक और कांच की झीरियाँ



Red Bin

Contaminated Plastic Waste

- All plastic tubing's
- Plastic and IV Bottles
- Catheter
- Drains
- Urobag
- Syringes without needles
- IV cannula
- Gloves and Shoe Cover (Disposable)
- Vacutainer without needle



लाल बैग

संक्रमित प्लास्टिक कचरा

- सभी प्रकार की प्लास्टिक की बोतलें एवं टुबिंग
- कैथिटर
- ड्रेन
- पेशाब की थैली
- सिरिज (सुई रहित)
- आई वी कॅनुला
- दस्ताने व शू कवर
- वैक्यूएनर (सुई रहित)

Blue Bin

Glass ware items

- Broken or discarded and contaminated glass including medicine vials and ampoules.
- Glass slides
- Metallic body implants
- Keep Cardboard box inside the bag



नीला बैग

कांच की वस्तुएं

- टूटी हुई व साबुत कांच की बोतलें, एम्पुल ग्लास स्लाइड
- मेटैलिक बॉडी इम्प्लांट्स
- बैग के अंदर गत्ते के पैटी रखे

Sharp Container

Contaminated Sharps

- Needles
- Syringes with fixed needles
- Scalpels, Blades, Suture Needles



सफेद कंटेनर

संक्रमित नुकीली वस्तुएं

- सुईयाँ
- सिरिज के साथ फिक्स नीडल
- ब्लेड
- सूचर नीडलस



Thank
you

