

Bio-Medical Wastes


[Bio-Medical Waste Management]



PREPARED BY:
CHIRAG R PARMAR
PARVEZ A MUGAL
MAHAMMADSAMIR M SANCHORA

What is bio-medical waste?

Waste generated during the diagnosis, testing, treatment, research or production of biological product for humans or animal.



WASTE CLASSIFICATION

- Clinical waste
- Sharps waste
- Chemical waste
- Pharmaceutical waste
- Laboratory waste
- Radio-active waste
- Cytotoxic /genotoxic waste
- Food & domestic (general) waste

Who's at Risk ?

- Doctors and nurses



- Patients



- Hospital support staff



- Waste collection and disposal staff



- General public and

- the Environment

Why Bio Medical Waste Regulated ?

- ✓ **To minimize the potential for spread of disease from a medical settings to the general public;**
- ✓ **To reduce the overall amount of infectious medical waste produced.**

MANAGEMENT OF HOSPITAL WASTE

Yellow Dustbin & Bags

dressing, bandage and cotton swab contaminated with body fluid or blood,

blood bag, sample,

human or animal body parts, tissue and placenta.



MANAGEMENT OF HOSPITAL WASTE

Red Dustbin & Bags

vaccines ,Microbiology &

Biotechnology Wastes,

collection tube, iv set,

Infected or used syringe,

used gloves,

Blood, Pus, Sputum and other

Body Fluids infected plastic

waste.



MANAGEMENT OF HOSPITAL WASTE

Black Dustbin & Bags

contaminated and discarded medicines,

solid chemicals used for disinfection in Lab & Hospitals as insecticides



MANAGEMENT OF HOSPITAL WASTE

Blue or white Dustbins & Bags

Glassware, slide, and needles etc. that may cause puncture and cuts. This includes both used and unused sharps objects.



Colour-Coded Bins for Segregation of Bio Medical Waste



Waste Management

- ✓ ***The Biomedical Waste (Management & Handling) Rules, 1998 & 2016***
- ✓ ***The Municipal Solid Waste (Management & Handling) Rules, 2000***

TREATMENT & DISPOSAL

Waste Category	Waste Category Type	Treatment & Disposal Option
Category-1	Human Anatomical Waste (human tissues, organs, body parts)	Incineration/deep burial
Category-2	Animal Waste (animal tissues, organs, body parts carcasses, bleeding parts, fluid, blood and experimental animals used in research, waste generated by veterinary hospitals, colleges, discharge from hospitals, animal houses)	Incineration/deep burial
Category-3	Microbiology & Biotechnology Wastes (Wastes from laboratory cultures, stocks or specimens of micro-organisms vaccines, human and animal cell culture used in research and infectious agents from research and	Local autoclaving/micro-waving/incineration

TREATMENT & DISPOSAL

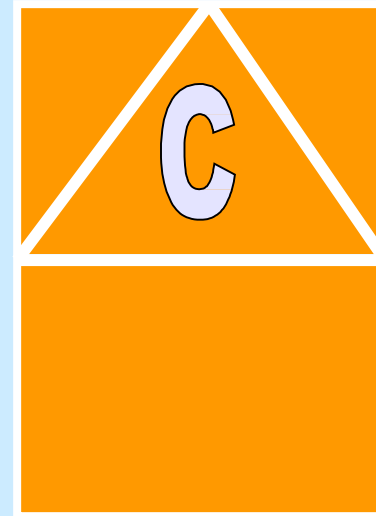
Waste Category	Waste Category Type	Treatment & Disposal Option
Category-4	Waste sharps (needles, syringes, scalpels, blades, glass etc. that may cause puncture and cuts. This includes both used and unused sharps)	disinfection (chemical treatment)/autoclaving/ secured landfills
Category-5	Discarded Medicines and Cytotoxic drugs (wastes comprising of outdated, contaminated and discarded medicines)	incineration/destruction and drugs disposal in secured landfills
Category-6	Soiled Waste (Items contaminated with blood, and body fluids including cotton, dressings, other material contaminated with blood)	Incineration/autoclaving

Schedule-III

Label for Containers of Bio-Medical Waste



Bio Hazard



Cyto-Toxic Substance

Label for Transportation of Bio-Medical Waste Containers /

v <u>Waste category No.</u>	Day ----- Month -----
v Waste class	Year -----
v Waste description	Date of generation-----
<u>Sender's Name & Address</u>	<u>Receiver's Name & Address</u>
v Phone No.	Phone No.
v Telex No.	Telex No.
v Fax No.	Fax No.
v Contact Person	Contact Person

In Case of Emergency, Please Contact:

- v Name & Address
- v Phone No.



And also do not forget that

- ✓ **Bio-medical waste shall not be mixed with other Wastes such as Municipal Waste**
- ✓ **Segregate the Bio-medical Waste in separate containers at point of generation (schedule-II) and label as prescribed (schedule-III)**



And also do not forget that

- ✓ **Biomedical waste that are to be transported, must be securely packed, and Labeled as per (schedule-IV).**
- ✓ **Transportation of BM Waste is allowed only in vehicles authorized by the prescribed Authority**
- ✓ **A day -to -day record of the Quantity under different categories of the Bio – Medical Waste generated in premises must be maintained**

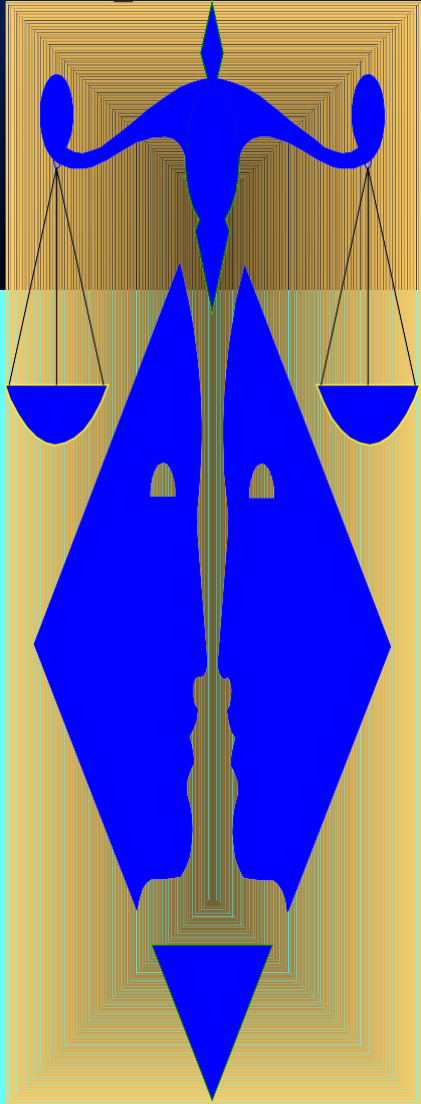


And also do not forget that

- ✓ **No untreated Bio-medical Waste shall be kept stored beyond 48 Hrs.**
- ✓ **if for any reason, the Bio-Medical Waste is required to be stored beyond this time limit, the Authorized person must seek a permission from Prescribed Authority and take adequate measures to ensure that waste does not affect the human life & environment adversely.**

Legal Aspects

The contravention of the Act
Rules, Orders & directions
may lead to legal action



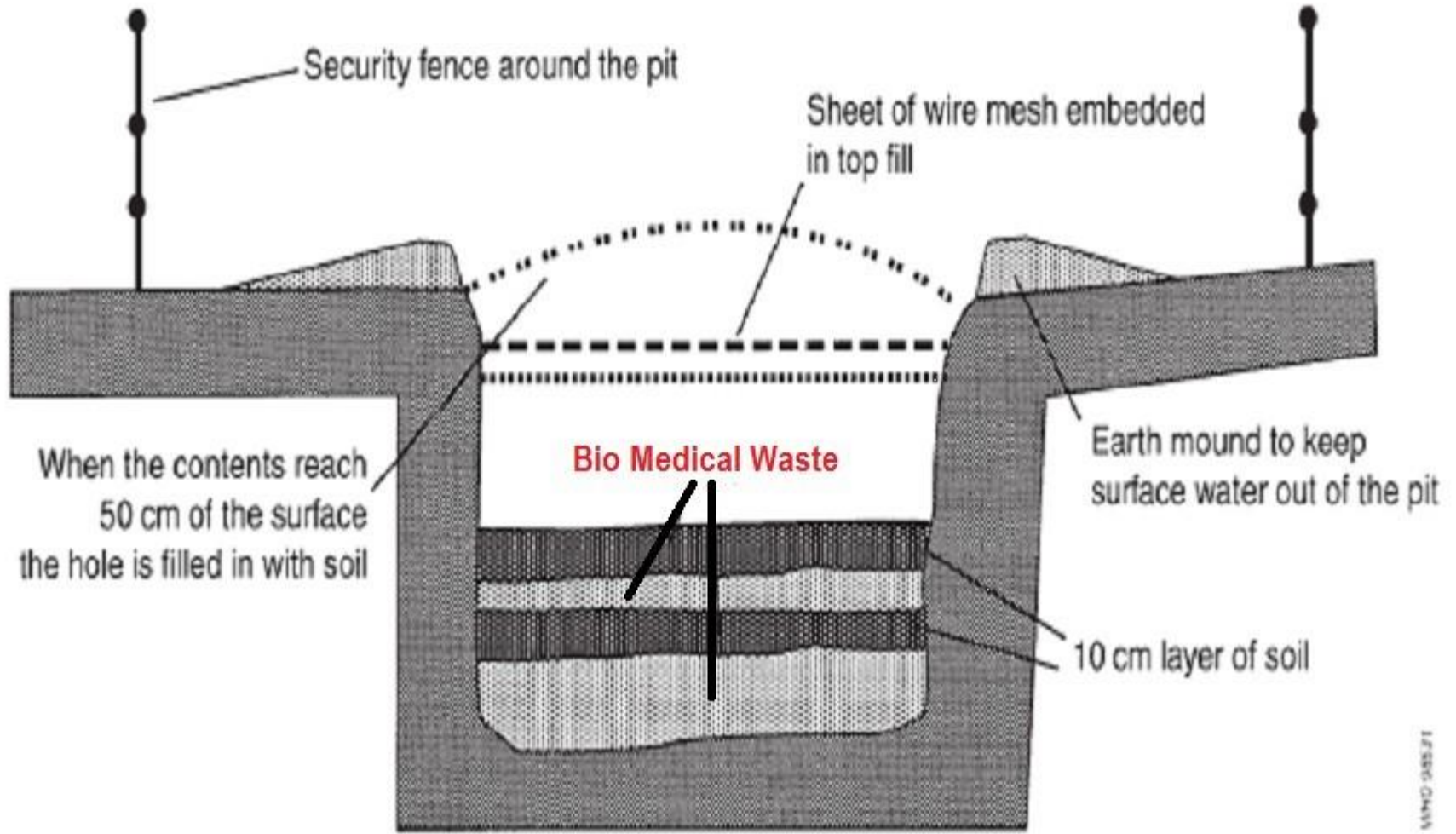
The punishment may lead to the
imprisonment up to 5 years with fine
up to Rs. 1 lakh.



Incinerator Ash Disposal



DEEP BURIAL PIT for BMW



THANK YOU