

Waste Segregation

- Waste segregation means dividing or separating waste at earliest opportunity, at point of origin.
- Not allowing hazardous waste to mix-up with non-hazardous waste.

- If waste is properly segregated, small amount are needed for disposal instead of large quantity of waste, ultimately related manpower, related cost, related risk lowered.
- If segregation is not properly done, small quantity of hazardous waste has a chance to mix with large volume of non-hazardous waste making the whole volume into hazardous waste.

Waste Handling

Waste handling means the links between packing, storage and transportation of medical waste from every area of the institution by designated individual.

Out-Fit of Waste-Handler



Waste Collection

- Collectors must wear **protective materials**.
- Collection of waste in **colored bag or colored covered bins**.
- Content of the container should not exceed **three quarter of its capacity**.
- If bag is used for waste collection, **tie the neck tightly**.
- Avoid **throwing, dragging over floor or holding the bottom of the containers**.

Transportation

In-house transportation

- Means transportation of waste from the site of origin or collection to temporary storage area within the institution.
- Waste should be transported by designated trolley, through the designated route according to time schedule given by the institutional authority.

Temporary in-house storage

- The store will be a room or area or building within the health care facility depending upon the quantity and quality of waste production and frequency of waste collection.
- Normally waste should not be stored **more than 24 hours**.

Record Keeping

- Accurate record keeping is needed for effective medical waste management.
- Record keeping might give some important information , which are needed for:
 - a. Assess the recurrent expenditure
 - b. Assess the quality and quantity of generated waste

Treatment and Final Disposal of Hospital Waste

Principles are:

- **Incineration** (Destruction) (Temp over 850 degree Centigrade)
- **Chemical disinfection**
- **Render inert**

FINAL DISPOSAL METHODS

General non hazardous waste	Secured landfills
Liquid wastes	Chemical disinfectant , neutralization with reagent, and discharged into the sewerage system.
Human anatomical wastes	Incinerated and sent to landfill sites.
Sharps	Needles can be cut by needle cutter and contained in 1% bleach solution, and sent to landfill for disposal.
Microbiology waste	Autoclave/Microwave/Incineration F/b landfill disposal.
Infectious solid waste	Autoclave/Microwave/Incineration F/b landfill disposal.
Radioactive waste	The solid wastes are disposed by concentration and storage.
Pressurised containers	Disposed off with general waste in secured landfills.

Hospital Waste Management- Practices in Bangladesh

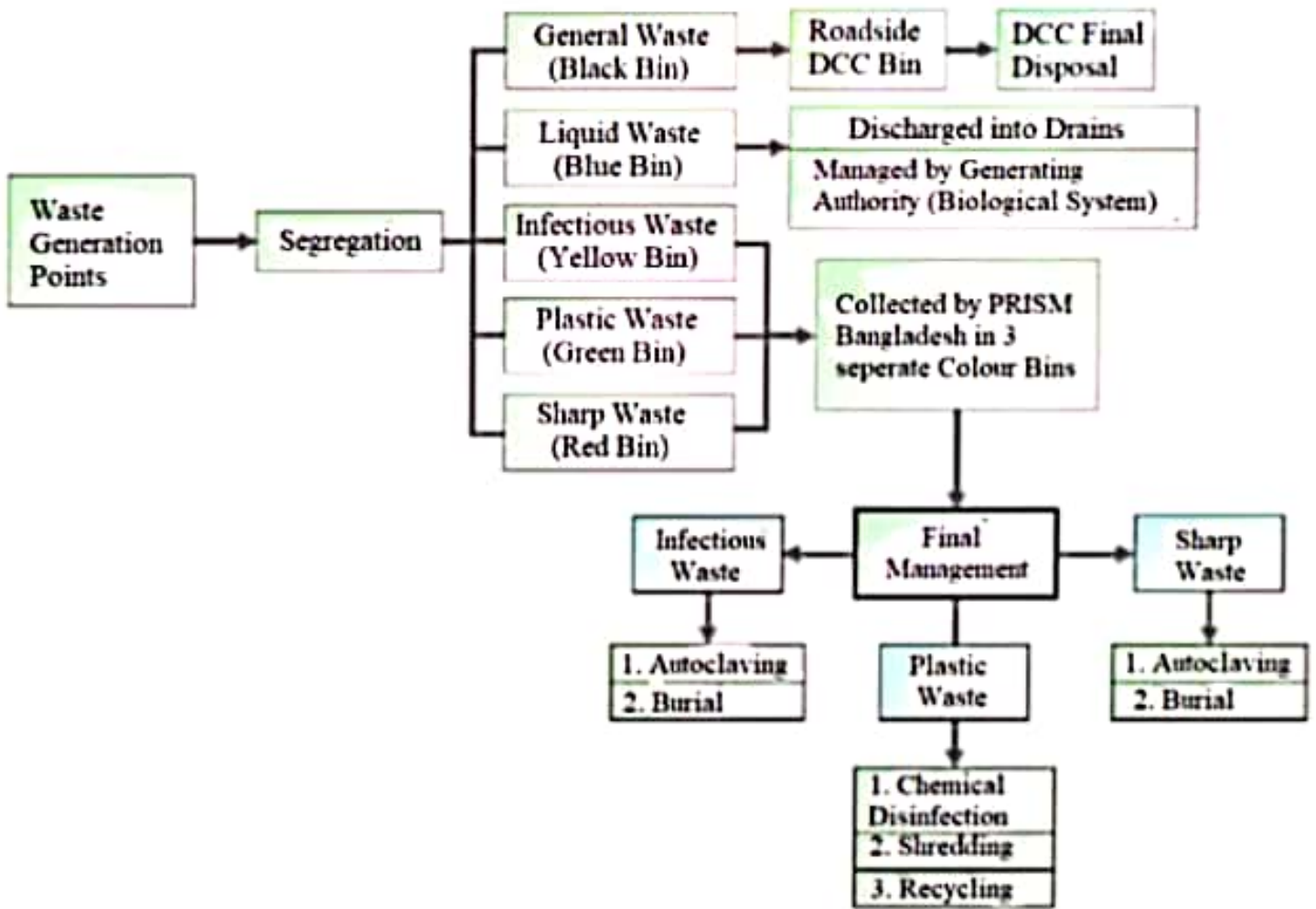
The hospital waste management practices somehow have not been given appropriate attention and importance in Bangladesh. Other problems include:

- Lack of implementation of guideline
- Existing gaps within the waste management rule 2008
- Problem in Environmental Act 1995
- Lack of interest and unity
- Economic constrains
- Following the old management
- Corruption of the lower level
- Hazardous waste management is not high in the political agenda
- Lack of responsibilities and supervision
- Inadequate enforcement of existing pollution control laws.

There are only **three NGOs** in Bangladesh that are actively working in the field of hospital waste management. These NGOs are **PRISM** (Project in Agriculture, Rural Industry, Science and Medicine) Bangladesh in Dhaka city, **BASA** (Bangladesh Association for Social Development) in Tongi and **Shawpno** in Bagura.

They are collecting the waste from the hospitals with a nominal service charge. Among the three NGOs, PRISM Bangladesh along with DCC is properly collecting and treating the hospital waste up to final disposal. There are only 342 hospitals, clinics and diagnostic centres under PRISM Hospital waste management program. Rest of the healthcare institutions follow none, or their own or old system.





Hospital Waste Management System by PRISM Bangladesh