

SOP: Waste Segregation and Proper Biomedical Waste Disposal

This SOP details **waste segregation and proper biomedical waste disposal** procedures, emphasizing the correct classification, segregation, and handling of biomedical waste to prevent contamination and ensure environmental safety. It includes guidelines on color-coded waste bins, safe collection, transportation, treatment, and disposal methods compliant with regulatory standards, aiming to protect healthcare workers, patients, and the community from biohazards and maintain a hygienic healthcare environment.

1. Purpose

To ensure safe and compliant handling, segregation, and disposal of biomedical waste, mitigating risks of infection and environmental harm.

2. Scope

This SOP applies to all healthcare workers, housekeeping, and relevant staff involved in waste generation, handling, and disposal within the facility.

3. Responsibilities

- **Healthcare Staff:** Segregate waste at the point of generation according to guidelines.
- **Housekeeping Staff:** Collect, transport, and store segregated waste safely.
- **Waste Management Officer:** Monitor compliance, conduct trainings, and coordinate with authorized waste disposal agencies.

4. Waste Classification & Color Coding

| Waste Category | Examples | Color Coding | Type of Container |
|-------------------------------|------------------------------|---------------------|---|
| Infectious Waste | Blood bags, swabs, dressings | Yellow | Non-chlorinated plastic bags/containers |
| Sharps | Needles, scalpels, blades | White (Translucent) | Puncture-proof, leak-proof, tamper-proof containers |
| Contaminated recyclable waste | IV sets, catheters, gloves | Red | Non-chlorinated plastic bags/containers |
| Glassware | Broken glass, ampoules | Blue | Cardboard boxes with blue marking |
| General Waste | Paper, food, wrappers | Black/Green | Non-chlorinated plastic bags/containers |

5. Procedure

1. **Segregation at Source:**
 - Segregate waste immediately at the site of generation into designated color-coded containers.
 - Do not overfill waste containers; replace when 3/4th full.
2. **Handling and Collection:**
 - Wear appropriate PPE (gloves, apron, mask) while handling waste.
 - Seal containers/bags securely before collection.
 - Collect waste at scheduled intervals for all patient care areas.
3. **Internal Transport:**
 - Transport waste in covered trolleys designated for biomedical waste.
 - Avoid spillage and contamination during transfer.
4. **Temporary Storage:**
 - Store segregated waste only in authorized storage areas, not exceeding 48 hours.
5. **Treatment & Final Disposal:**
 - Hand over waste to authorized biomedical waste treatment facilities.
 - Ensure compliance with local regulatory standards for incineration, autoclaving, shredding, or landfilling, as

applicable.

6. Spill Management:

- Immediately clean spills with appropriate disinfectant.
- Dispose cleaning materials as biomedical waste.

7. Documentation:

- Maintain records of waste generation, collection, and disposal as per regulatory requirements.

6. Training

- Conduct mandatory training and periodic refresher sessions for all relevant staff on waste segregation and safety protocols.

7. Safety & Compliance

- Always use PPE while handling waste.
- Report incidents, spills, or injuries immediately to supervisor.
- Follow local regulations and facility policies to ensure environmental safety.

8. Review

This SOP will be reviewed annually or as needed to ensure compliance with current regulations and best practices.

9. References

- Biomedical Waste Management Rules, Government of India (or local equivalent regulations)
- WHO Guidelines on Safe Management of Wastes from Healthcare Activities