MODULE 12: Labeling, Handling and Collection of Healthcare Waste
Module Overview

• Describe appropriate labeling, handling and collection procedures for wastes, particularly infectious and sharps wastes

• Present the steps in developing a collection system

• Describe methods of bag closure

• Describe ways for handling common problems
Learning Objectives

• Describe the requirements for labeling
• Describe the requirements for handling and collection of different types of waste
• Know the steps in developing a collection system
• Demonstrate proper methods of bag closure, handling and collection
• Demonstrate procedures for dealing with common problems
Steps in Healthcare Waste Management

- Waste classification
- Waste segregation
- Waste minimization
- Handling and collection
- On-site transport and storage
- Treatment and disposal
Waste Labeling

• Should be established as part of a healthcare waste management plan

• Recommended waste label content:
  – Date
  – Type of waste
  – Point of generation (to allow tracking)

• Weight should be routinely recorded, where possible.
Waste Handling

• Should be established as part of a healthcare waste management plan

• Waste handling
  – Requires use of proper PPE
  – Requires use of good body mechanics
Waste Handling

- Body mechanics
  - The way we move when conducting activities
- Good body mechanics could protect the body from injury.
- Examples of bad and good body mechanics when lifting

![WRONG](image1.png)  ![RIGHT](image2.png)
Waste Collection

• Should be established as part of a healthcare waste management plan

• Waste collection
  – Should ensure that waste from each area is collected at least daily (except for sharps)
  – Should ensure that containers are not overfilled
  – Should ensure segregation is maintained

• Sharp waste should be collected when the box is 3/4th filled
Steps for Developing a Waste Collection System

• Identify the points of generation of different types of wastes within the healthcare facility
• Quantify the amounts of wastes and calculate optimum container sizes for each area
• Evaluate how quickly the containers fill
• Set up fixed collection times so infectious waste containers are removed when 3/4 th full; set up a notification procedure for whenever waste needs to be removed sooner
• Resupply bags or containers during removal
• Conduct continuous monitoring and improvement
Some Considerations When Scheduling Collection Times

• Match collection times with the regular pattern of waste generation during the day

• Examples:
  – In medical areas where the morning routine begins with the changing of dressings – collect infectious waste mid-morning to prevent accumulation of soiled bandages
  – In facilities with set visiting hours – collect general and recyclable waste after visitors have departed
  – Collect infectious waste from surgical theaters according to the schedule of operations
Infectious Waste Containers

• Ideal infectious waste containers are those that have
  – Lids that remain closed except when waste is discarded
  – Pedal-operated devices to open the lids
  – Color-coded bags inside the containers
Infectious Waste Collection

• Wastes should be transported to the designated central or interim storage area

• Waste bags and containers should be labeled with the date, type of waste, and point of generation so that it can be correctly and easily tracked through to disposal

• Do not redistribute the waste contents by shaking the bag as this could cause liquids or aerosols to be released.
Proper Bag Closure

• Staff should ensure that waste bags are tightly closed or sealed when they are about \( \frac{3}{4} \) full.

• Bags should *not be* closed by stapling (which can cause tears).

• A plastic tag or tie can be used.

• Light-gauge bags can be closed by tying the neck.

• Heavy-gauge bags may require a plastic sealing tag of the self-locking type.
Proper Bag Closure

• Examples of bag tying methods
  – Simple knot
  – Goose-neck or swan-neck method
  – Self-locking tag
Bag Removal and Replacement

- The bags or containers should be replaced immediately with new ones of the same type
- A supply of fresh collection bags or containers should be readily available at all locations where waste is produced
Collection of Sharps

- Safety boxes should not be more than \( \frac{3}{4} \) full when closing and sealing them.
- Overfilling increases the risk of needle-stick injuries.
- If a cardboard safety box has a broken handle, check all sides and bottom to make sure there are no protruding needles before removing the container.
- Heavy-duty gloves should be used when handling sharps containers.
Chemical Waste Collection

• Chemical wastes should never be mixed or disposed of down the drain but stored in strong leak-proof containers

• All chemicals should be clearly labeled
  – type of waste
  – name of the major chemicals
  – any necessary hazard labels, e.g. corrosive, flammable, explosive, or toxic
Pharmaceutical Waste Collection

• Unused pharmaceuticals should go back to the pharmacy for return to the manufacturers or dispatched to specialist waste treatment contractors.

• Spilled and contaminated pharmaceuticals should go directly from the point of generation to the facility waste storage.

• Pharmaceuticals should be kept in their original packaging to aid identification and prevent reaction between incompatible chemicals.
Radioactive Waste Collection

• Where specialist disposal services exist, they should collect and handle radioactive wastes.

• Otherwise, waste may be stored in radiation-proof repositories (leak-proof, lead-lined, and clearly labeled with name of radionuclide and date of deposition) where it can decay naturally.
Discussion

• What is your facility’s protocol for different types of wastes?

• How do you collect…?
  – Non-infectious wastes
  – Chemical waste
  – Mercury (broken thermometer)
  – Pharmaceutical wastes
  – Cytotoxic drugs
  – Radioactive wastes
How to Handle Improperly Segregated Waste

• Poorly segregated waste should never be sorted, but instead treated as the most hazardous type of waste in the container

• Corrective action must be taken to ensure that the waste is segregated properly in the future
How to Handle Leaking Bags or Containers

- Leaking bags or sharps containers should be placed in a secondary container (e.g., another plastic bag) with the same color code and label.
How to Handle Overfilled Bags

• Do not attempt to transfer portions of the waste to another bag or container

• Two workers with proper PPE are needed

• With one worker holding open a larger secondary container (e.g., a larger plastic bag of the same color code), another worker should carefully place the overfilled bag or container into the secondary container putting the overflowing waste in first

• Affix a special label on the outside container if it is not color-coded; follow clean-up procedures if there is a spill

• Report the overfilled bag to your supervisor
How to Handle an Overfilled Sharps Container

• Do not attempt to transfer portions of the waste to another container

• Using long heavy-duty gloves that protect the arms, carefully place the overfilled container into a larger secondary container that is puncture-resistant (e.g., a thick hard cardboard box or plastic box)

• Affix a special label on the outside container if it is not labeled and follow clean-up procedures if there is a spill

• Report the overfilled container to your supervisor
Overfilling Waste Container

• Why does this happen?
• How can it be prevented?
Overfilling Sharps Container

• Why does this happen?
• How can it be prevented?

Do Not Overfill
Country-Specific Requirements

Add information here about the country specific guidelines or requirements for labeling, handling, and collection of healthcare wastes.
Discussion

• What are some procedures and protocols in place in your facility for handling and collecting wastes?
• Are there different guidelines set up for different types of wastes—infected, chemical, etc.?
• Do you know about country-specific guidelines for handling and collection?
• How does your facility deal with the removal of wastes?
• What labeling process do you follow?
• What are some of the weaknesses and strengths of your current system?
• How can existing practices be improved?