



## CYTOLOGY : DISPOSAL OF HUMAN WASTE

### 24.1 INTRODUCTION

Hospital waste is “Any waste which is generated in the diagnosis, treatment or immunization of human beings or animals or in research” in a hospital. Hospital Waste Management means the management of waste produced by hospitals using such techniques that will help to check the spread of diseases through



### OBJECTIVES

After reading this lesson, you will be able to:

- describe various methods of cytology waste disposal
- practice safe disposal of human and chemical waste.

### 24.2 DISPOSAL OF HUMAN WASTE

The laboratory should conform to the local practices and guidelines for safe disposal of human and chemical waste generated in the laboratory.

#### Hospital Waste categories and Disposal

Option	Waste Category	Treatment & Disposal
Category 1	Human anatomical waste	Incineration /deep burial
Category 2	Animal waste	Incineration /deep burial
Category 3	Microbiology & biotechnology waste	Incineration /deep burial

## Cytology : Disposal of Human Waste

Category 4	Sharps	Incineration / disinfection / chemical treatment / mutilation
Category 5	Medicines and cytotoxic drugs	Incineration / destruction and disposal in secured landfill
Category 6	Solid waste (Blood and Body fluids)	Autoclave/chemical treatment/ burial
Category 7	Solid waste (disposable items)	Autoclave/chemical treatment/ burial
Category 8	Liquid waste ( blood & body fluids)	Disinfection by chemicals/ discharge into drains
Category 9	Incineration Ash	Disposal in municipal landfill
Category 10	Chemical waste	Chemical treatment/ secure landfill

## MODULE

Histology and Cytology



Notes

### 24.3 WHO MEDICAL WASTE CATEGORIES

#### Infectious

Materials containing pathogens if exposed can cause disease.

- Human anatomical waste: waste from surgery and autopsies on patients with infectious diseases;
- Sharps: disposable needles, syringes, saws, blades, broken glasses, nails or any other item that could cause a cut;
- Pathological: tissues, organs, body parts, human flesh, fetuses, blood and body fluids;

#### Non Infectious (Hazardous)

- Pharmaceuticals: drugs and chemicals that are returned from wards, spilled, outdated, contaminated, or are no longer required;
- Radioactive: solids, liquids and gaseous waste contaminated with radioactive substances used in diagnosis and treatment of diseases like toxic goiter.

#### Non Infectious (Non Hazardous)

- Domestic waste: from the offices, kitchens, rooms, including bed linen, utensils, paper, etc.

## MODULE

Histology and Cytology



Notes

### Cytology : Disposal of Human Waste

Care needs to be taken to dispose off the Infectious and non-infectious hazardous waste. The non Infectious (Non Hazardous) waste can be disposed off with regular garbage disposal.

Cytology laboratory generates waste in the form of remnants of fluids (peritoneal, pleural, cysts, etc), sputum, and left over specimen of liquid cytology. The specimens need to be discarded only after chemical decontamination using at least 1% sodium hypochlorite solution; and then discharged into drains/ sewers where it is taken care of by the principle of dilution and dispersal.

Any solid waste needs to be disposed off according to hospital waste management. Before disposal the specimen need to be segregated after proper identification.

#### Segregation by color coding system

Three categories

- Infectious waste - Red bags
- Domestic waste - Green Bags
- Sharps - Needle cutters / Puncture proof containers

#### Transportation

- Containers: puncture proof, leak proof,
- Bags: sturdy, properly tied
- Transport trolleys: designated & timely
- Staff protection: provided with protective clothing and other items
- Never put hands in a bag

The infectious material in red bags will go for incineration.

The sharps can either go to incinerator or following autoclaving/chemical disinfection can be mutilated. They should never be thrown in regular garbage.

Chemical waste collected throughout the staining, dehydration, clearing and coverslipping processes must be disposed of or recycled according to state and local regulations.



#### INTEXT QUESTIONS 24.1

1. Specimens before discarding need to be decontaminated with .....
2. Infectious waste is discarded in ..... colour bag
3. Domestic waste is discarded in ..... colour bag
4. Sharps are discarded in ..... container



### WHAT HAVE YOU LEARNT

- Hospital waste is “Any waste which is generated in the diagnosis, treatment or immunization of human beings or animals or in research” in a hospital
- Hospital Waste Management means the management of waste produced by hospitals using such techniques that will help to check the spread of diseases through
- WHO categories waste as Infectious, Hazardous Non-infectious and Non-hazardous non-infectious
- The specimens need to be discarded only after chemical decontamination using at least 1% sodium hypochlorite solution; and then discharged into drains/sewers where it is taken care of by the principle of dilution and dispersal
- Any solid waste needs to be disposed off according to hospital waste management. Before disposal the specimen need to be segregated after proper identification.
- Segregation is by color coding system as Infectious waste - Red bags, Domestic waste - Green Bags, Sharps - Needle cutters / Puncture proof containers



Notes



### TERMINAL QUESTIONS

1. What are the categories of hospital waste?
2. What are the WHO categories of medical waste?
3. What are the main methods of medical waste disposal?
4. What is the color coding for waste disposal?



### ANSWERS TO INTEXT QUESTIONS

#### 24.1

1. 1% sodium Hypochlorite
2. Red
3. Green
4. Blue / Puncture resistant