

# Storage and Maintenance of Drugs

# Introduction

Drugs which are supplied to ward are stored in drug cupboard to provide a uniform supply of drugs to the patients.

The drugs are stocked in containers, such as boxes and on flexible shelves etc.

It must be ensured that drugs which are stored remain preserved in their storage.

There should not be any damage due to high temperature or exposure to light.

The drugs are to be stored as per the prescribed conditions of storage.

# Introduction

The drugs stored in a drug store be arranged in such a way that they are easily traceable as and when required.

According to pharmacological action  
Alphabetically

# Drug Storage

over drug storage

age Environment

ngement of drugs on shelves

storeroom

dispensary





## 1. Proper drug storage

Drugs are stored in a specially designed secure area or space of a building in order to:

- ▶ Avoid contamination or deterioration,
- ▶ Avoid disfiguration of labels,
- ▶ Maintain integrity of packaging and so guarantee quality and potency of drugs during shelf life,
- ▶ Prevent or reduce pilferage, theft or losses,
- ▶ Prevent infestation of pests and vermin.

## 2. Storage Environment

The storage environment should possess the following:

- ▶ Adequate temperature,
- ▶ Sufficient lighting,
- ▶ Clean conditions,
- ▶ Humidity control,
- ▶ Cold storage facilities,
- ▶ Adequate shelving to ensure integrity of the stored drugs.

## Storage and Maintenance

- ▶ Drugs to be stored under condition that prevent contamination & as far as possible, deterioration.
- ▶ **“Well closed container”** precautions to be taken in relation to the effects of the atmosphere, moisture, heat & light.
- ▶ **“Protected from moisture”** means that the product is to be “stored in air tight container”

## Protected from light

- ▶ **“Protected from light”** the product is to be stored either in a container made of material that absorbs actinic light sufficiently to protect the contents from change induced by such light.



# Temperature

- ▶ In a deep freeze       $(-15^{\circ}\text{C})$
- ▶ In a refrigerator       $2^{\circ}\text{C} - 8^{\circ}\text{C}$
- ▶ Cold or cool       $8^{\circ}\text{C} - 15^{\circ}\text{C}$
- ▶ Room temperature  $15^{\circ}\text{C} - 25^{\circ}\text{C}$

## Storage Premises

- ▶ The Storage area must be free from unsanitary conditions(Ex Rodents, insects, Birds, litter etc).
- ▶ The floor of the warehouse should be made of hard floor (Concrete /Kota/Epoxy) and must be in a good state of repair and appearance at all times.
- ▶ The floors are kept clean and free of trash, dirt, sippage water, drain water etc.
- ▶ The area must be kept clean and free of refuse.

## Storage Premises

- ▶ The area used for storage of IV fluids should have adequate space and to prevent exposure to direct sunlight.
- ▶ Secured area availability for damaged, rejected and expired goods.
- ▶ Ensure adequate pest control program in place and shall be carried out at a minimum frequency of a year.
- ▶ The Pest control shall cover treatment for Termite and Rodents.

### 3. *Arrangement of drugs on shelves*

- ▶ Shelves should be made of steel or treated wood.
- ▶ Shelves should be strong.
- ▶ Drugs are arranged in alphabetical order of generic names.
- ▶ Each dosage form of drug is arranged in separate and distinct areas.
- ▶ Sufficient empty space should demarcate one drug or dosage form from another.

- ▶ Most recently received drugs are placed behind old stock on the shelf except where new drugs have shorter expiration dates.
- ▶ Always put lids properly on tins always and at the close of the day.



- ▶ Put drugs in a dry place protected from light and heat.
- ▶ Store liquids on a pallet on the floor or on the lowest shelf.
- ▶ The store must be cleaned daily and mopped at least once a week.

## 4. The storeroom

- ▶ A well-arranged store enables easy identification of drugs and saves time when picking a drug from the shelves.
- ▶ This helps remove drugs quickly and makes for easy inventory control.

- ▶ The rule of **FIRST IN FIRST OUT (FIFO)** should be applied always.
- ▶ So, drugs that were received first should be used first, except where the new stock has shorter expiration dates than the old stock.
- ▶ In this regard, the principle of **FIRST TO EXPIRE FIRST OUT (FEFO)** should apply.
- ▶ To have access to drugs with shorter expiration dates first, put these in front of the shelves.
- ▶ Those with longer expiration dates should be placed behind those with shorter dates.

## 5. *The dispensary*

- ▶ Clean after each use tablet counters and place within easy reach on the table.
- ▶ Avoid dispensing wrong drugs by arranging drugs on the table in alphabetical order so that the drug being dispensed is not confused with another.
- ▶ Always close drug containers from which drugs are not being dispensed to prevent spillage or dispensing the wrong drug.

## Drug expiry

- **Shelf life**- the time where a given product stored under reasonable condition, is expected to remain stable (>90%potency)
- **Essential drugs**- drugs that satisfy the health care needs of the majority of the population.
- Essential drugs should there fore available at all times in adequate amounts & in appropriate dosage forms.



## Expiry dates

- ▶ Medications must not be administered, and products and equipment must not be used beyond their expiry dates.
- ▶ All medical equipment, dressings and solutions used during invasive procedures must be sterile.
- ▶ Single-use devices are meant for single use only and must not be re-used.

## Storage, Maintenance & Security

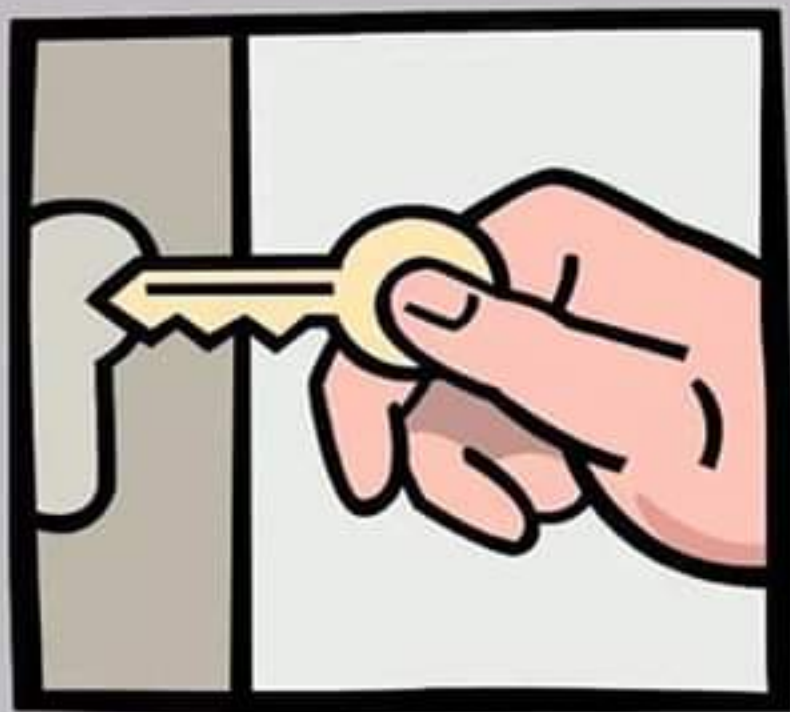
- ▶ All drugs, including samples, should be maintained separate from non-medications in a locked cabinet which is sufficiently secure to deny access to unauthorized persons.
- ▶ Key should be available only to authorized personnel who are assigned medication-related responsibilities.
- ▶ Store medications that are “for external use only” separate from medications intended for internal use.

## Storage, Maintenance & Security

- ▶ On daily basis check, verify and document the proper temperature.
- ▶ All multiple-dose injectable medications should be initialed and have the date of first entry recorded on the label.
- ▶ Rotate medication stock monthly employing a "FIFO" (first in/first out) process.

# Controlled Drug Regulations

## ► Double Locked Container



## Controlled Drug Regulations

- ▶ 2 licensed personnel count (or verify any discrepancies) every shift (8 hours)
- ▶ Witness to all discards
- ▶ Record on Control Substance Sheet all administrations and wastes.





## Controlled Drugs

All details must be completed in the Doctors own handwriting, like:

- ▶ Name of drug
- ▶ Dose of drug
- ▶ Number of doses or length of course
- ▶ Signature of prescribing doctor and date

## Storage of Controlled Drugs

They must be kept in a locked cabinet  
cupboard



The keys to the cabinet must be in the possession of an  
authorised person

authorised person, refers to Ward Manager or deputy who  
must be a Trained Nurse or Midwife

Students should not be responsible for the controlled drug  
cupboard keys

## Recording of Controlled Drug Use

Records in the form of **CONTROLLED DRUG REGISTERS** kept

Each drug must have its own specified page which is Headed with the Drugs name and Strength

The Number of Ampoules of a drug must be entered and dated with every use.

## Recording of Controlled Drug Use

► Must record:

- Date
- Time
- Dose of every administration
- Name of receiving patient/client
- Number of ampoules at start and finish of administration

Entry must be signed by 2 people **one of who must be registered**

No alterations must be made to the entry

All entries must be in **Black Ink**