

PHARMACY PRACTICE

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Hospital Pharmacy

⇒ Hospital pharmacy may be defined as that department of hospital which deals with procurement, storage, compounding, dispensing, manufacturing, testing, packing and distribution of drugs.

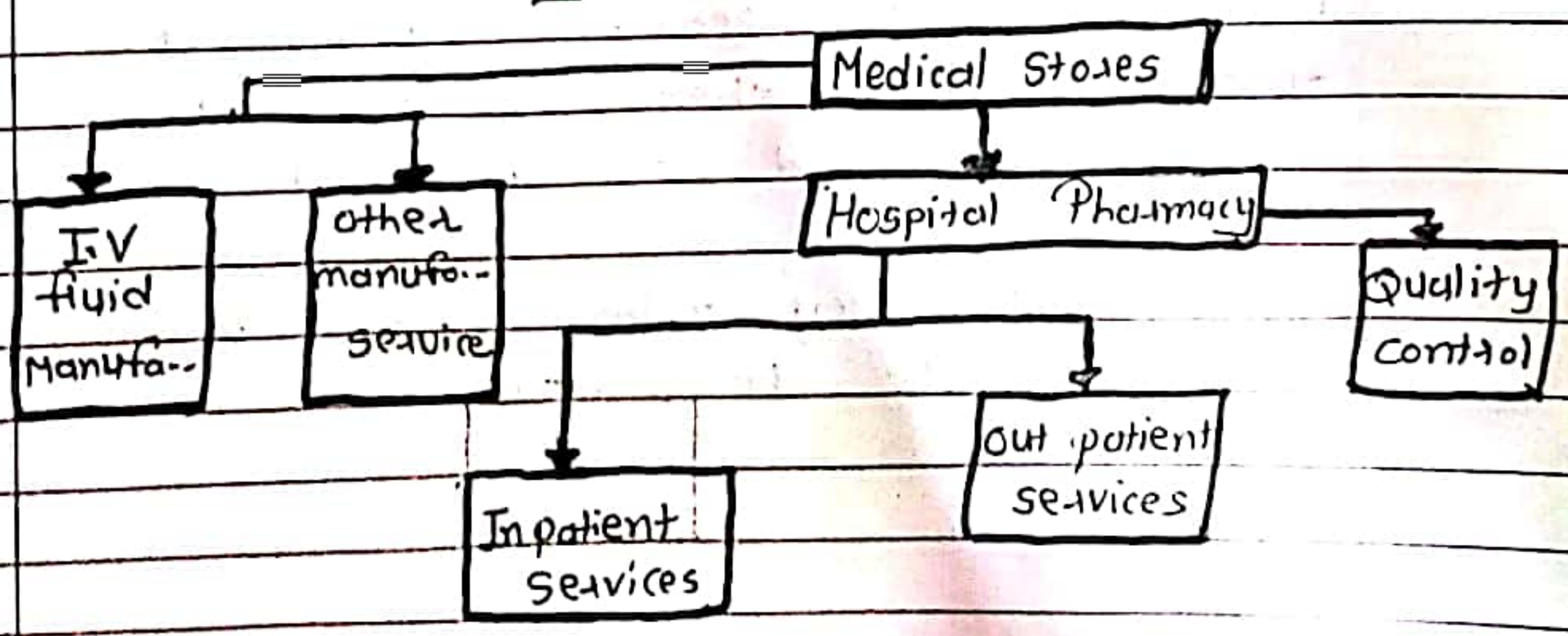
• Functions of Hospital Pharmacy

- ⇒ Providing specifications for the purchase of drugs, chemicals.
- ⇒ Proper storing of drugs.
- ⇒ Manufacturing and distribution of medicaments such as Parenteral products, tablets, capsules, ointments and stock mix.
- ⇒ Necessary inspection of all pharmaceutical supplies in other department of hospital.
- ⇒ Maintenance of records and specification of purchase drugs, chemicals and pharmaceutical preparation used in hospital.
- ⇒ Hospital pharmacy take responsibility to educate and trained the nurses, physician.

• Objectives of Hospital Pharmacy

- 1) To teach hospital pharmacist about ethics of Hospital Pharmacy.
- 2) To educate nurses, Pharmacist trainees and other medical staff on various aspects of drugs.
- 3) To ensure the availability of right medication at reasonable cost.
- 4) To establish drug information service in hospital.
- 5) To attract greater number of qualified pharmacist in the hospital.
- 6) To coordinate and cooperate with other department of hospital.

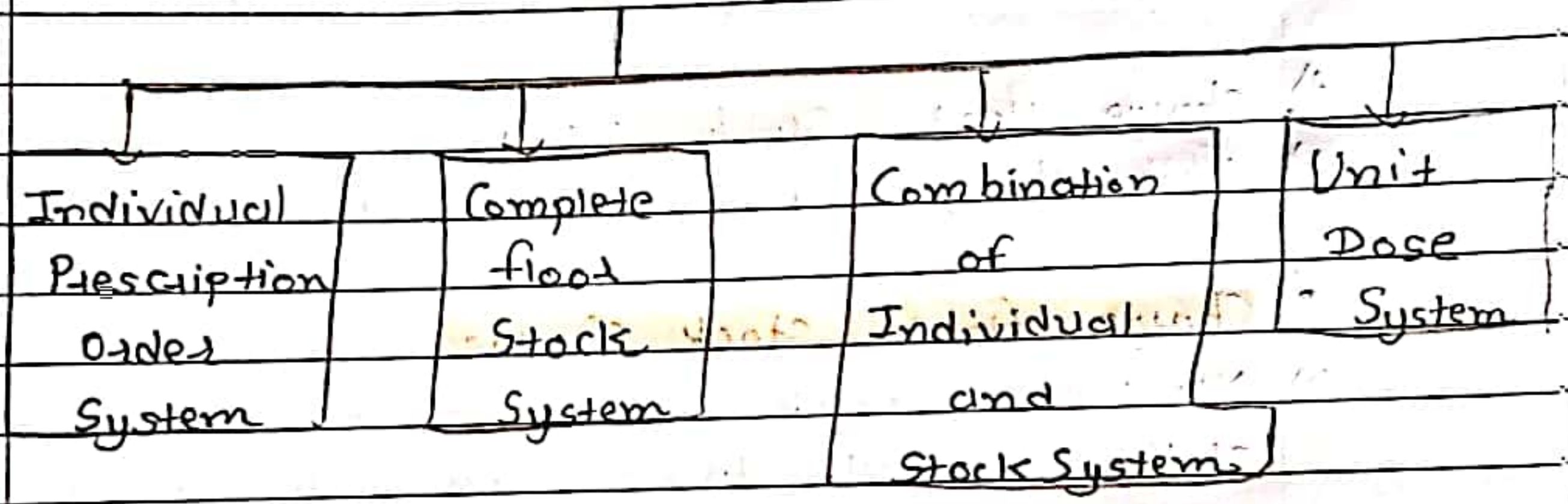
Layout of Hospital Pharmacy



In Patient Services

↳ In those who require hospitalization to get themselves admitted in the hospital, stay here for treatment till they are discharged

↳ They are four systems in general use for dispensing drugs for in-patients.



↳ Individual Prescription Order System

↳ In this type of prescription system where the physician writes the prescription for individual patient who obtains the drug prescribed from any medical store or hospital dispensary by paying own charges

• Advantages:

- » All medications orders are directly reviewed by pharmacist.
- » It provides the interaction of pharmacist-doctor nurse and the patient.

2) Complete -floor Stock System

↳ Under this system, the drugs are given to the patient through the nursing station and the pharmacy supplies from the drug store of a hospital.

↳ Drugs on the nursing station or ward may be divided in two parts

A) Charge floor stock Drugs

B) Non charged floor stock Drugs

• Charge floor stock Drugs

↳ Medicines which are stocked on the nursing station at all times and charged to the patient's account after they have been administered to them

↳ Selection of these drugs in various wards is decided by P.T.C.

↳ Once the floor stock list is prepared, it becomes the responsibility of the hospital pharmacist to make the drugs available

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* Pharmaceutical and Related preparations:

Category	Preparation
Anti Allergics	Prednisolone Tablet
Antibiotics	Penicillin-G Injection
Anti Coagulant	Heparin

• **Non-Charge floor stock Drugs**

↳ Non charge floor stock drugs are the medicaments that are placed at the nursing station for the use of all patients on the floor.

↳ Those drugs, there shall be no direct charge from the patients' account. It is divided into methods.

A) Drug Basket Method

B) Mobile Dispensary Method.

A) Drug Basket Method:

↳ Nurse fill a requisition form for delivery of drugs at their floor.

↳ When there is an empty container, the nurse place it in the drug basket.

→ Once the basket is completed, it delivery to be the float in via messenger service

→ Alternatively mobile dispensary can be utilised.

B) Mobile Dispensary Method :

→ It is specially constructed stainless steel which is 60 inches high, 48 inches wide and 25 inches deep equipment.

* Following List of such Non-charge drugs :

Ampoules	Capsules	Tablets	Solutions	Powders
Adrenaline	Dulcolax	Atropine sulfate	Tim Belladonna	Glucose
Digioxin	Multivitamins	Paracetamol	Castor oil	Sodium Bicarbonate
Lidocaine (HCl)	Digitalis	Nitro Glycerine	Tim Benzoin Compound	Talcum
Aminophyllin			Elixir KCl	

Difference between floor and Non floor Stock System

Charge floor Stock System Non-charge floor Stock System

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|--|---|
| <ul style="list-style-type: none"> The charges are made in the Patients account after the have been administered from the stock drugs | <ul style="list-style-type: none"> The drugs are not made in the account directly even after the drug have been administered |
| <ul style="list-style-type: none"> Every dose of the drug administered to the patients are charged | <ul style="list-style-type: none"> This system charges are made indirectly to the patients. |
| <ul style="list-style-type: none"> Only those dose are charged which are expensive can rarely used | <ul style="list-style-type: none"> The cost of the drugs are not high as they are mostly used in tablets, capsules. |
| <ul style="list-style-type: none"> Floor stock list is prepared which is sent to make the drugs available to all the nursing station | <ul style="list-style-type: none"> A pre-determined list is prepared by nursing station. |

3) Combination of Individual and floor Stock System

↳ This system is followed in the government and also in private hospital who run on the basis of no profit and no loss.

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↳ This system is has individual prescription of medication system is followed as a major means.

↳ Requirement of drugs or surgical items are given to the patient who purchase and deposit these items in hospital wards or rooms under supervision of registered nurse.

4) Unit Dose Dispensing

↳ Those medications which are ordered, packed, handled, administered and charged in multiple of single dose units containing a predominant and predetermined amount of drug or supply for one regular dose.

↳ A single unit package is one which contains one complete pharmaceutical dosage forms.

• Advantages :

» Better financial control

» It prevents the loss of partially used medications

» It does not require storage facilities at the nursing station.

↳ There are two methods for dispensing unit dose are.



Centralized unit dose drug Distribution System [CUDD]



Decentralized unit dose drug Distribution System [DUDD]

A) Centralized Unit Dose Drug DS

↳ All in patient drugs are dispensed in unit doses and all the drugs are stored in central area of the pharmacy and dispensed at that time the dose is due to be given to the patient.

↳ Drugs are transferred from the pharmacy to the inpatient by medication cards

B) Decentralized Unit Dose Drug DS

↳ This operates through small satellite pharmacies located on each ~~part~~ floor of the hospital.

• PROCEDURE :

↳ patient profile card containing full date, disease, diagnosis is prepared.

↳ Prescription are sent directly to the pharmacist which are then entered in the patient profile card.

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↳ Patients profile card and prescription order is filled by pharmacy technicians.

↳ The nurses administer the drugs and make the entry in their records.

• Advantages :

- » Easy for the administration staff.
- » Accounting becomes easier in certain cases.
- » Better stability of the products.

• Disadvantages :

- » Highly cost.
- » Consumes more time and doubtful.
- » Occupy more space for storing.

Dispensing of Control Drugs

• Hospital Control Procedures

- 1) Responsibility for controlled substance in the hospital.
- 2) Ordering ward stock of the controlled substance from the pharmacy.
- 3) Doctors orders for administration of controlled drugs.

• Responsibility of Controlled substance

→ The administrative head of the hospital is responsible for the proper safeguarding and the handling of controlled substances within the hospital.

• Ordering ward stock of the controlled substances from the pharmacy

→ A requisition for ward stock controlled substances is completed by insertion a check mark opposite the name, strength form of controlled substance desired.

→ Before any new controlled substances are issued to a ward.

• Requisition form for ward stock controlled substances

VIGNAN HOSPITAL PHARMACY			
Ward:	code:	Date: - - -	
No of tablets Capsules	check item needed	Price	
20	Codeine Sulphate tabs (15mg)	--	
20	Morphine Sulphate	--	
25	Morphine sulphate	--	
	Amoules		
20	Phenobarbitone tabs	--	

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• Doctors orders for administration of controlled Drugs

→ The following information must appear on the Doctor's controlled drug order sheet.

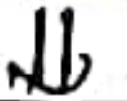
Date



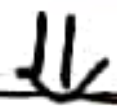
Patient full Name



Patient's hospital Number



Specific description of Drug ordered and strength



Amount to be given

Prescriptions

→ In dispensing of controlled substances, the following requirements should be with prescriptions:

- 1) Except when dispensed
- 2) Drugs may be dispensed on the oral prescription in an emergency situation.
- 3) Prescription shall be retained in conformity with the requirements of this law.

4) No prescription for a controlled substance in schedule II may be refilled.

5) Controlled substances in Schedule III and IV may not be dispensed or written or prescribed in conformity.

Information on daily controlled drug administration sheet

6) The full information required on the daily controlled drugs administration sheet as follows

- 1 Date
- 2 Amount given
- 3 Patient's full Name
- 4 Patient's Hospital Number
- 5 Name of doctor ordering
- 6 Signature of nurse administering
- 7 Frequency and route of administration.

VIGNAN HOSPITAL PHARMACY

Date: --- Ward no: Floor:

Daily Controlled Drug Administration Form

Patient's Name	Specific Description of Drug	No of Tabs	Strength of USP	Order by Doctor	Adm by Nurse

Labelling

↳ Labelling ultimately reflects pharmacy department. The pattern of labelling is as follows

- 1 Name
- 2 Dosage Form
- 3 Strength
- 4 Batch no
- 5 Expiry Date
- 6 Special Direction if required.

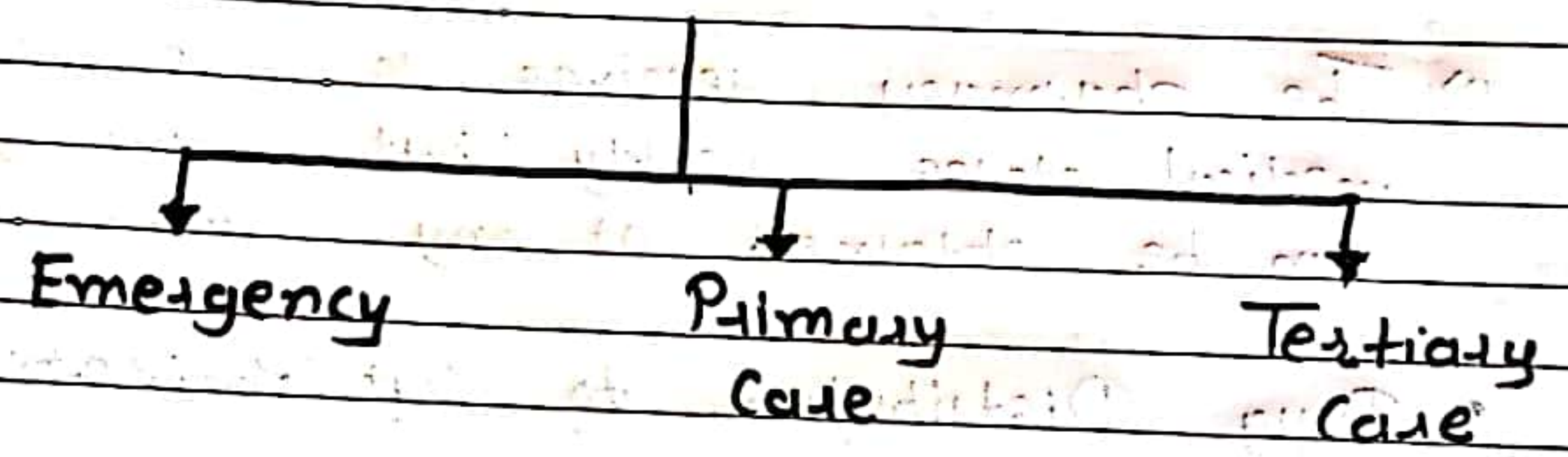
Charging Policy

↳ The hospital should have uniform schedule for charging of drugs, the policies can be categorised under several systems like

- » All inclusive
- » A part inclusive rate
- » The professional fee concept
- » Break even point purchase
- » A cost plus rate system
- » The profit aspect
- » Computerised pricing

• Out-Patient Pharmacy Service

- ⇒ Out patient refers to patients not occupying beds in a hospital or in clinics, health centers and other places
- ⇒ Out patient load into 3 categories



- 1) **Emergency** : A person given emergency or accidental care for conditions which require immediate medical attention.
- 2) **Primary Care** : Primary care is majority care, it describe range of services adequate for meeting. Most primary care is used by patients who are ambulatory.
- 3) **Tertiary Care** : It is directly to out patient department by attending medical practitioner for specific treatment other than an emergency treatment.

• Location of Out-patient Dispensing

- ↳ It should be located on the ground floor of the building.
- ↳ The out patient dispensing area should be provided with proper seating arrangement.
- ↳ The pharmacy receives its supplies from medical stores weekly but emergency supplies can be obtained at any time.

• Drug Distribution to Out-Patients

- ↳ No medicaments should be issued without the prescription.
- ↳ After the issue has been made the quantities supplied must be recorded.
- ↳ Medicines are given to the out-patients from the pharmacy situated in the out patient block.

Controlled Substance Act

Schedule I -

(MOST DANGEROUS)

Controlled substances that have no established medical usage, cannot be used safely, and have great potential for abuse. This schedule includes:

- heroin
- LSD
- mescaline
- Peyote
- methaqualone
- psilocybin
- marijuana
- hashish
- other specified hallucinogens

Controlled Substance Act

Schedule II ->

Substances defined as drug with high abuse potential for which there is currently accepted pharmacological or medical use. Most are considered addictive.

Examples:

- opium
- morphine
- codeine
- cocaine
- PCP
- other derivatives

Controlled Substance Act

Schedule III →

This schedule involves lower abuse potential than drugs in schedules I or II. They have an accepted medical use but may lead to high level of psychological dependence or to moderate or low physical dependence. Examples include:

- Many drugs found in schedule II, but in derivative or diluted form.

Controlled Substance Act

Schedule IV →

These have a relatively low potential for abuse, are useful in established medical treatments, and involve only limited risk of psychological or physical dependency. Examples include:

- depressants
- minor tranquilizers
- some stimulants.

Controlled Substance Act

Schedule V →

(Least Dangerous)
prescription drugs
with low potential
for abuse and only
limited possibility
for psychological
or physical dependence.
Examples:

- Cough medicines containing opium, morphine, or codeine.
- Anti-diarrhetics containing opium, morphine, or codeine.