DRUG DISTRIBUTION IN THE HOSPITAL

RESEARCH DOCTOR PHARMA

DRUG DISTRIBUTION TO INPATIENTS

Individual prescription ordersystem: It is a 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 medication orders are directly reviewed by pharmacists. It provides the interaction of pharmacist-doctor,nurse and the patient. It provides clear control of inventory

Complete floor stocksystem: 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 to.

1. Charge floor stock drugs

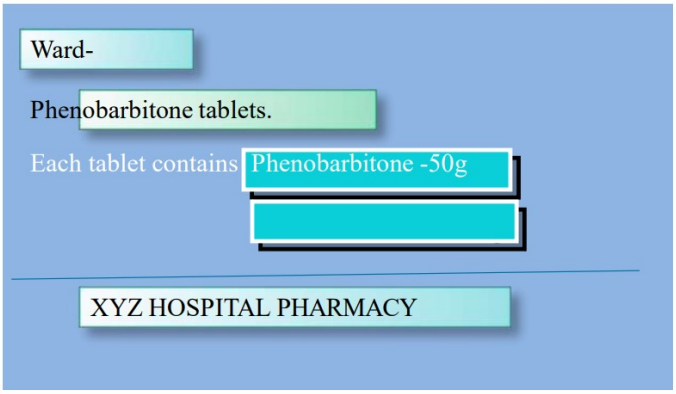
2. Non charge floor stock drugs

1. Charge floor stock system: 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. Dispensing of floor stock drugs. The patient is charged for every single dose administered to him. Selection of these drugs in various wards is decided by PTC Once the floor stock list is prepared ,it becomes the responsibility of the hospital pharmacist to make the drugs available

Pharmaceutical and related preparation

Category	Preparation
Anti-allergies	Prednisolone tablet
Antibiotics	Penicillin G inj.
Anticoagulant	heparin
Cardio vascular agents	Digoxin inj.

Label of charge floor stock

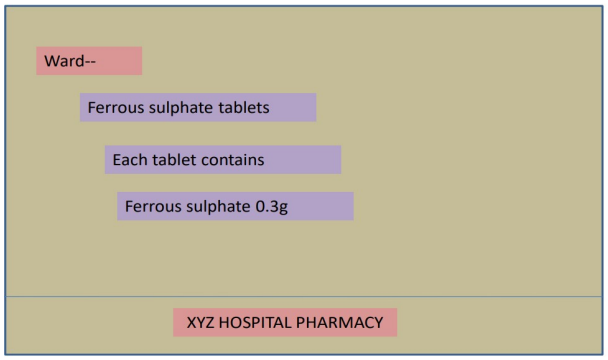


2.Non-charge floor stock drugs: Non charge floor stock drugs are the medicaments that are placed at the nursing station for the use of all patients on the floor. These drugs ,there shall be no direct charge from the patients account. It is divided in to two methods. Drug basket method. Mobile dispensary unit.

Drug basketmethod: 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 the floor via messenger service. Alternatively mobile dispensary can be utilised.

Mobiledispensary: It is specially constructed stainless steel. 60 inches high. 48 inches wide and 25 inches deep. It is mounted on bottomtyres.

Label of non charge floor stock drug:



Fallowing list of such non-chargedrugs

Ampoules	Capsules	Tablets	Solutions	Powders
Adrenaline	Dulcolax	Atropine sulphate	Tin.belladona	Glucose
Digoxin	Multivitamins	Paracetamol	Castor oil	Sodium bicarbonate
Lidocaine HCl	Digitalis	Nitroglycerine	Tin.benzoin compound	Talcum
Aminophylline			Elixir kcl	

Difference between floor & non floor stocksystem

Charge floor stock system

- The charges are made in the patients account after the have been administered from the stock drugs.
- Every dose of the drug administered to the patients are charged .
- Only those dose are charged which are expansive can rarely used.
- Floor stock list is prepared which is sent to make the drugs available to all the nursing station

Non-charge floor stock system

- The drugs are not made in the account directly even after the drug have been administered .
- This system charges are made indirectly to the patients.
- The cost of the drugs are not high as they are mostly used in tablets, capsules.
- A pre-determined list is prepared by nursing station.

Unit dose dispensing: Those medications which are ordered ,packed ,handled administered and charged in multiples of single dose units containing a predetermined amount of drug or supply sufficient for one regular dose. A single unit package is one witch contains one completely

Advantages: Better financial control. It prevents the loss of partially used medications. It does not require storage facilities at the nursing station

Two methods of dispensing unit doses are: a. Centralized unit dose drug distribution system (CUDD) b. Decentralized unit dose drug distribution system (DUDD)

a. Centralized unit-dose drug distribution system(CUDD):

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

Drugs re transferred from the pharmacy to the indoor patient by medication cards.

b.Decentralized unit dose dispensing:

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

Procedure:

Patient profile card containing full date ,disease ,diagnosis is prepared.

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

Pharmacist checks medication order. Patient 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 Ex-Eno-fruit salt in sachets.

Disadvantages:

 High cost.

 consumes more time and doubtful.

 will occupy more space for storing.

 ledger posting and inventory control problem.

General flow chart for drug distribution to in-patient

Distribution of drugs to ICCU/ICU/NICU/Emergency wards.

Distribution of drugs to ICCU:

ICCU: The intensive Coronary care unit (ICCU) is a unit dedicated to the treatment of heart condition such as coronary heart disease, heart attack, cardiac arrest and heart failure Critical care.

ICU: Intensive care unit, life support are provided in an intensive care Unit for Critically ill Patients.

NICU: Neonatal Intensive care Unit , also known as an intensive care nursery, is a unit specializing in care of ill or Premature new born infants.

The first 28 days of life are referred to as neonatal.

Emergency Ward:

 Also known as an accident and emergency department, emergency room or causality department.

 It is a medical treatment facility specializing emergency medicine, the acute care of patient present without prior appointment, either by own means or ambulance.

Intensive Coronary Care Unit:

 Coronary care unit arose in the 1960s as it became obvious that constant supervision by highly trained personnel , cardiopulmonary resuscitation, and medical intervention may minimize death from cardiovascular disease Complication.

 Patient who are critically unwell are admitted to the ICCU.

 The availability of telemetry or continuous cardiographic monitoring of the heart rhythm, is a key element of coronary treatment.

 Patient with myocardial infarction or unstable angina are commonly admitted to the coronary care Unit.

 Myocardial infarction is the most common morbidity discovered.

The majority of the medications prescribed were from the WHO'S essential drug list.

 Tablet aspirin is the most commonly prescribed medicine.

 Promethazine, Heparin, hydrocortisone, buprenorphine , streptokinase ,metaprolol, pentazocine and frusemide are among the most commonly utilized injections.

 Antibiotics are used less frequently.

Intensive Care Unit (ICU)

The following is a list of the eight most commonly utilized medications in emergency situations:

 Adenosine

 Amiodarone

 Atropine

 Epinephrine

 Lidocaine

 Procainamide

 Sotalol

 Vasopressin

Neonatal Intensive care Unit (NICU)

 Organ immaturity, congenital disease, or birth related problems are the most common reasons that neonates brought to the NICU.

 They monitor medication dosage and levels.

 They keep the team informed about any potential adverse effects and any addition monitoring that may be required.

 Exposure to potential drug interaction (DDI) is a significant risk related with ADE occurrence in the NICU.

 Medication most commonly administered include: ampicillin, furosemide, dopamine, azithromycin, sildenafil, ibuprofen and fluconazole.

Emergency word:

 Error can occur if a physician prescribes the incorrect medication.

 If the prescription intended by the doctor is not the one communicated to the pharmacy due to an illegally written prescription or a misheard verbal order, if the pharmacy dispenses the incorrect medication or given to the incorrect person.

 One of the ways to overcome this situation was to use emergency trolleys used or missing items on the emergency trolleys as efficient as possible.

 All wards are always fulfilled with emergency medications such as adrenalin, salbutamol, atropine, furosemide, hydrocortisone, insulin, lidocaine, and medical oxygen.

Automated drug dispensing systems and devices:

Automated drug dispensing systems and devices are computerized systems that can accurately dispense medications to patients. These systems can be found in hospitals, pharmacies, and

other healthcare facilities.

There are several types of automated drug dispensing systems and devices, including:

1. Robotic dispensing systems: These systems use robots to dispense medications. They can be programmed to dispense a specific dose of a medication, and can handle multiple medications at once.

2. Bar code scanning systems: These systems use bar code technology to ensure that the correct medication is dispensed to the right patient. The bar code on the patient's wristband is scanned, and then the medication is scanned to ensure that it matches the medication prescribed for the patient.

3. Automated medication cabinets: These systems are similar to vending machines and are often used in hospitals. The medications are stored in individual drawers, and the system dispenses the medication based on a prescription order.

4. Pharmacy dispensing systems: These systems are used in pharmacies to fill prescriptions. The system can accurately count and dispense pills, and can also label and package the medications.