

## **Inventory Management of Central Drug Store**

**Drug Store** A drug Store/Pharmacy/Community Pharmacy/chemist's is a retail shop which provides prescription drugs, among other products. At the drug store, a pharmacist oversees the fulfillment of medical prescriptions and is available to give advice on their offerings of over the-counter drugs. A typical pharmacy would be in the commercial area of a community. Every hospital should have a medical store for the purpose of procuring, stocking and distributing the drugs and medicines to various department.

### **Organisation of Drug Store**

Stores are defined as a sub-organisation in any hospitals where materials obtained are held in abeyance till inspected, approved and stocked. A store should have a standard specification of materials and since the store procured the drugs on behalf of the department for regular flow of material, the condition of storage should be proper.

### **Objectives of Drug Stores**

1. To stock all drugs and accessories required in the hospital.
2. To procure drugs from different sources.
3. To supply drugs to the consuming departments.
4. To store drugs required in research work.
5. To preserve records of receipt and issue of drugs.
6. To maintain records of receipt and issue of drugs.
7. To carry out all operations regarding drugs economically to save revenue.

### **Layout of Drug Store**

The drug store should be preferably located on the ground floor close to the pharmacy. An area of at least 600-1000 sq ft should be allotted to medical stores. Adequate storage facilities should be there so that the drugs, chemicals, biological etc .Do not get deteriorated by moisture or heat. An ideal store should have two entrances, one for receiving the articles and other for issue of materials. Generally racks are used for storage of material made of angled iron, having partitions. Costly items are stored in closed bins. The height of racks depend up on the height of ceiling and should be above 2/3 rd the height.

Since large number of products are to be stored in the store, A definite location code is to be followed in order to identify the product or material placed in store. For this purpose analysis is carried out after studying there inventory like:

- (i) F S N- Fast moving, slow moving, non moving
- (ii)H M L- Heavy, medium, light materials

According to above mentioned categorisation, fast moving materials are placed near the issue

exit while non moving articles are placed far from the exit. Similarly heavy items are placed at the bottom and light items on the top.

Now a day's records are maintained using Bin Card system.

A ledger or bin card has 4 codes like 1 2 3 4

A 5 B 3

(1-Panel, 2-Row, 3-Rack, 4-Bin)

This means panel A, 5th row, Rack B and Bin 3 materials can be entered either in ledger or bin cards in Alphabetical order but this may cause problems as number of drugs are known by different name. They may be categorised and stored depending up on their therapeutic effect.

### **TYPES OF MATERIALS STOCKED**

Sufficient number of racks should be provided for storage of drugs and supplies. Carbon dioxide fire extinguishers should be provided at strategic points along with fire buckets to fight sudden fires due to stored drugs and chemical. Materials which are stocked are listed as under:

- (i) Capsules, tablets, liquid dosage form and injections etc.
- (ii) Biological antibiotics are stored properly in refrigerator.

Storage conditions

Cold storage: 2-8°C

Cool temp: 8-25°C

Room temp RT-temp. Temperature prevailing in working area.

Warm: 30-40°C

Excessive Heat: Above 40°C

#### **Cold storage (2-8°C)**

For proper storage of drugs, it is advisable to have a separate room or a portion maintained at this temp range. A recording thermometer should be provided and temp should be noted at least twice daily.

It should remain under the supervisor and in case a separate room is not available, adequate number of refrigerator should be provided for the purpose. The maintenance of these refrigerators in working order is the responsibility of the supervisor. Drugs such as insulin, sera, whole human blood, frozen plasma, thromboplastin, oxytocin injection, and certain

vaccines etc. are not allowed to freeze. The chief pharmacist should personally check that such drugs are stored at respective places as per their prescribed storage conditions.

### **Storage at Cool Temperature (80C- 250C)**

Drug such as antibiotics, vitamins, liver preparations are required to be stored at a cool temp. The space of this room should be adequate considering the maximum stock of drugs likely to be purchased by the hospital during any time of the year. The chief pharmacist should ensure that no drug falling in this category is stocked away from this room .An inspection register should be maintained by the Chief pharmacist.

### **List A –(Drugs requiring cold storage 2-8°C)**

1. Sera
2. Vaccines
3. Whole human blood
4. Concentrated human red blood corpuscles(4-6°C)
5. Normal human plasma
6. Frozenn plasma –at a temp not above -18°C
7. Thrombin
8. Tromboplastin
9. Cobra venom in solution
10. Viper venom in solution
11. Posterior pituitary injection
12. Oxytocin injection
13. Vasopressin injection
14. Corticotropin gelatin injection
15. Corticotrophin zinc oxide injection
16. Cholistin sulphamethate injection
17. Suxamethonium chloride injection
18. Insulin preparation
19. Human gamma globulin injection
- 20- Normal liquid human serum albumin
- 21- Schick test toxin

**List – B (Drugs requiring storage at cool temp. 8-25°C)**

**Antibiotics**

1. Crystalline penicillin preparation
2. Potassium phenoxymethyl penicillin preparation
3. Benzathine penicillin preparation
4. Cloxacillin preparation
5. Methicillin preparation
6. Ampicillin preparation
7. Streptomycin sulphate and chloride preparation
9. Tetracycline, oxytetracycline, chlortetracycline preparation
10. Bacitracin and zinc bacitracin preparation

**Arsenicals**

11. Neoarsphenamine injection
12. Sulpharsphenamine injection
13. Trypsinase injection

**BLOOD PREPARATIONS**

14. Dried plasma -below 20°C
15. Human fibrin foam -below 20°C
16. Human fibrinogen -below 20°C
17. Human serum dried -below 20°C
18. Human thrombin -below 20°C

**Hormone preparations**

19. Corticotropin
20. Betamethasone sodium phosphate injection
21. Chorionic gonadotropin
22. Prednisolone sodium phosphate injection
23. Oxytocin tablets

**Vitamin preparations**

24. Preparation containing vit. A, vit. B1, vit. B2, vit. B6, vit. C, vit. D
25. Vit. B complex elixir and injection

- 26. Vit. K injection
- 27. Vit. K preparations

**Others**

- 28. Dextran injection
- 29. Dextran sulphate injection
- 30. Dextrose injection
- 31. Dextrose and sodium injection
- 32. Heparin injection
- 33. Hyaluronidase injection
- 34. Chlorambucin preparations
- 35. Chorhexidine
- 36. Choline theophyline preparation
- 37. Liver injection crude
- 38. Ergot liquid extract