



Purchase & Inventory Control

Departmental Activity Chart

Pharmacy

Dispensing

Manufacturing

Purchase & Inventory control

Statistics & Report

Teaching

Control

Research

- Out Patient
- In Patient
- Medical & surgical + Lab Supplies
- Ward or Floor stock
- Alcohol
- Narcotics

- Bulk
- L. Vol Parentrals
- S. Vol Parentrals
- Surgical irrigation fluids
- Allergenic Extracts
- Misc

Purchase means an act of obtaining an article by making payment in terms of money or its equivalent; to **buy for a price**



Inventory means an itemized list of goods with their estimated worth; specifically an annual account of stock taken in any business

- In large hospitals :
Pharmacist + Purchase Officer
- PTC: Pharmacist
- Purchase department:
Pharmacist develop necessary
specification for the purchase
of drugs and allied products



Role of Pharmacist in drug procurement

- Maintains **a list** of the names, addresses and telephone numbers of drug manufacturers, wholesalers, and their local representatives.
- Prepare **detailed specifications** for drugs, chemicals and biologicals.
- Prepare **request** for *PURCHASE FORMS*.
- Prepare ***Receiving Memo*** if drugs are received directly by the pharmacy.
- Prepare ***RETURN GOODS MEMO***, whenever applicable.



Role of purchasing agent in the drug procurement

- **Issues Purchase Orders**
- **Maintains purchase records.**
- **Follow – ups on delayed orders.**
- **Initiates competitive bidding procedure.**
- **Obtains quotations from specified sources.**



Pharmaceuticals for the hospital use may be purchase in one of the following ways:

- **By direct purchase from the manufacturer**
- **By direct purchase from a wholesaler**
- **By bid from either manufacturer or wholesaler**
- **By purchase from a local retail pharmacy (emergency purchases only).**
- **By a contract purchase arrangement with the manufacturer**
- **By a contract purchase through a hospital purchase bureau or corporation**



ABC HOSPITAL, OOTY

Purchase Request Form

Order No. _____

Date: _____

Date Needed _____

Suggested Vendors

1. _____
2. _____
3. _____

S.N	Description	Price per Unit	Quantity		Units Required	Total Price
			Available	Required		

Requested By

Approved By

Purchase Request Form

- Completed by the pharmacist.
- Drugs from the same vendor may be grouped upon a single form.
- Provides specification of the drug, packaging, price, quantity needed, inventory balance and the average monthly use.
- The original form is forwarded to the administrative officer responsible for the department.
- Upon his approval the form is forwarded to the purchasing officer.
- A copy is retained by the pharmacy department as record for the final verification.

PURCHASE REQUEST FORM



QUOTATION INVITATION



PURCHASE ORDER FORM



Quotation Invitation
Purchase Officer invites quotation from different suppliers

ABC HOSPITAL, OOTY

Quotation Request

No. _____

Date: _____

To

Sir

Sealed Quotations are invited for the following drugs/ancillary products for our hospital

S.N	Name	Strength	Quantity	Unit Price

Director

Purchase Order Form

ABC HOSPITAL, OOTY

To _____ Purchase Order No. _____ *

M/s _____ Date: _____

Dear Sir

We are pleased to inform you that your Quotation No. _____ dated _____ has been passed by our hospital. Kindly supply the following

Item No	Specification	Price per unit	Quantity	Net Amount

Note

- * Quote this number on all the transactions
- Delivery must be made inside the hospital
- Transport charges will be borne by you/us
- All consignment are subject to inspection
- Inform immediately if unable to supply the goods within time

Date

Seal

Director

➤ Purchase Officer scrutinizes quotation received, checks the quality expected to be supplied

➤ Multi copy prepared -7 copies

Copy 1 – Supplier

Copy 2 – Accounts section

Copy 3 – Purchase officer copy

Copy 4 – Pharmacy

Copy 5 & 6 – Receipt Report

Copy 7 – History copy

Once the merchandise is received it is the function of the pharmacist to record upon a Purchase Record. This gives reference of the rate of use, cost of drug, etc.



- If merchandise to be returned to the vendor
- Returned Goods Memorandum must be prepared.
- The copies of the form must be provided to the accounting dept, purchasing Officer, store room, initiating dept and the vendor



Out of Stock



✚ At times there might be out of stock situation for the pharmacy dept handling surgical and laboratory supplies

✚ The out of stock form is prepared in two. One copy sent to the initiating pavilion and other retained in the pharmacy.

Control on Purchases

1. AO –Monetary limitations on the purchase order – outdated method
2. Computation of inventory turnover

Annual Cost of Goods Sold	Inventory Investment	Annual Inventory Turns
Rs 10,000	Rs 10,000	1
Rs 10,000	Rs 5,000	2
Rs 10,000	Rs 2,500	4



Inventory Turnover

A ratio showing how many times a company's inventory is sold and replaced over a period.

= Cost of Goods Sold from Stock Sales during the Past 12 Months
Average Inventory Investment during the Past 12 Months

Inventory Turnover

A low turnover implies poor sales and, therefore, excess inventory.

A high ratio implies either strong sales or ineffective buying.

✓ Turnover = 4 to 6

✓ Policy of Hospital

Control of Purchases Volume

➤ Hospital Pharmacist Responsibility



Important inventory control methods used in the hospitals are:

- 1. Economic Order Quantity (EOQ)**
- 2. Reorder Quantity Level (RQL)**
- 3. ABC Analysis (Always Better Control/ Pareto's Analysis)**
- 4. VED/VEN Categorization (Vital, Essential and Desirable or Non – Essential)**

Reorder Quantity Level (RQL)

The inventory level that must be reached before additional stock can be ordered.

Never an inventory reaches zero order level since it can cause serious problems.

RQL =

Average usage rate per month in units of issue x Vendor Lead Time + Safety Factor
13 weeks

Safety Factors For Various Vendor Lead Time

Vendor Lead (Time VLT)	Safety Factor
0 to 2 weeks	1.0
2 to 5 weeks	1.5
5 to 8 weeks	2.0
8 to 11 weeks	2.5
11 to 15 weeks	3.0

RQL =

Average usage rate per month in units of issue x Vendor + Safety
13 weeks Lead Time Factor

- Average usage rate per month in units of issue = 4500 capsules
- Inventory turn over = 4
- IF
 1. VLT is 0 to 2 weeks =?
 2. VLT 8 to 11 weeks=?

694

3811

Vendor Lead (Time VLT)	Safety Factor
0 to 2 weeks	1.0
2 to 5 weeks	1.5
5 to 8 weeks	2.0
8 to 11 weeks	2.5
11 to 15 weeks	3.0

Calculate the ROL for the Diclofenac Sodium 50mg tablet

➤ Average usage rate per month in units of issue = 2500 tablets

➤ Inventory turn over = 6

Use 8.7

576

➤ IF

1. VLT is 0 to 2 weeks =?

2. VLT 2 to 5 weeks=?

1439

Vendor Lead (Time VLT)	Safety Factor
0 to 2 weeks	1.0
2 to 5 weeks	1.5
5 to 8 weeks	2.0
8 to 11 weeks	2.5
11 to 15 weeks	3.0

The following aspects are not included in applying above formula

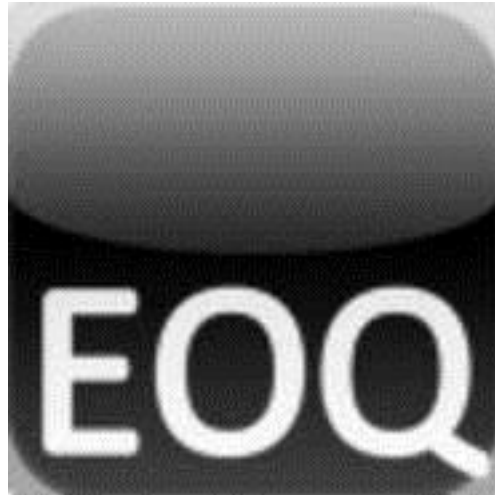
Unanticipated large increase in usage

Shelf life of the items involved

Unusual delays in delivery caused by strikes or storms

Necessity for rechecking the RQL periodically to allow for a change in usage rate

The determination of
how much to order?



EOQ

b) Cost of carrying inventory:

Consideration given to:

- Interest on the rupee value of the inventory.
- Space charge (rent) for the storage area.
- Labor costs for the storage operations.
- Cost of supplies for storage operations.
- Insurance.
- Obsolescence
- Taxes.
- Deterioration.
- Pilferage.

Dividing the value of the inventory by the total of the above costs results in the inventory holding or carrying cost.

$$EOQ = \sqrt{\frac{2(\text{Annual usage in units})(\text{Order cost})}{(\text{Annual carrying cost per unit})}}$$

$$= \sqrt{2 \times 12 \times \text{Monthly usage} \times \text{Cost of Ordering}} \\ \text{Unit Cost} \times \text{Holding Cost}$$

ABC Analysis

ABC value analysis examines the annual consumption of drugs and expenditures for procurement by dividing the drugs consumed into three categories:

Items	Total of Expenditure	No. of Items
A	75-80%	10-20%
B	15-20%	10-20%
C	5-10%	60-80%

VED Categorization

The VED system sets priorities for selection, procurement, and use according to the potential health impact of individual drugs.

- **V: Vital drugs** are potentially lifesaving, have significant withdrawal side effects (making regular supply mandatory), or are crucial to providing basic health services. Without which hospital functions cannot be performed.
- **E: Essential drugs** are effective against less severe but nevertheless significant forms of illness but are not absolutely vital to providing basic health care. Help in maintaining quality of service in the hospital.
- **D: Desirable drugs** are used minor or self-limited illnesses, are of questionable efficacy, or have a comparatively high cost for a marginal therapeutic advantage.