Inventory Control

Definition

Drug inventory are the drug items necessary for the proper functioning of pharmacy. Drug inventory control is a balance between not ordering too much and avoiding out of stock situation. Inventory management is essential to maintain a large size inventory for the efficient and smooth function of pharmacy. The ultimate aim of inventory control is to have optimum level of inventories

Objectives

⇒ Maximum customer service
⇒ Minimum inventory investment
⇒ Low cost plant operation

Importance of Inventory Control

⇒ Proper inventory control reduces cost of production.
⇒ Minimise the time wastage caused by the wastage of raw materials.
⇒ Minimise customised service.
⇒ Improve handling and storing of goods.
⇒ Minimise capital investment
⇒ Helps to deliver the goods at right place and at the right time.

⇒ Minimised goods wastage
⇒ Maintains records which shows the value of goods on storage

Functions
⇒ To keep inventories as low as possible consistent with market conditions.
⇒ To minimise "out of stock" danger which results in crash purpose at uneconomical rates.
⇒ To maintain a sufficient stock of finished product to meet reasonable expectations of customers for prompt delivery of goods.
⇒ To maintain proper records so as to supply accurate and regular material reports to management.
⇒ To forecast market and economic condition of supply as regards availability of materials.
⇒ To control wastage of drugs and theft.

There are two types of inventory control :-
i) Periodic inventory control - Stocks are checked on a pre-determined times and interval.
ii) Perpetual system - Continuous monitoring of stocks by modern methods.

Techniques of Inventory Control
1. ABC - analysis
2. Economic Order Quantity
3. Perpetual inventory system
4. Review of slow and non-moving items.
5. Input - output radio analysis.
6. VED - analysis.
7. Setting up of various levels
8. Use of material budgeting
9. Effective purchase procedure

⇒ ABC Method (Always Better Control)
According to this method, the community pharmacist divides the drugs into 3 - categories according to their values.

⇒ A - group contains : Costly items which are 10 - 20% of the total items. These items may not be more than 10% of total items, but these consume about 70% of total budget of inventories.

⇒ Group - B contains : The items coming under this group are neither costly nor cheap. These items constitute 20% of total quantity of inventories and 20% of total expenditure of inventories is spent on these items.

⇒ Group C contains : These items are comparatively cheaper in cost and represent 70% of total quantity of inventories. 10% of total expenditure of inventories is spent on these items.

Advantages :

⇒ The investment in inventory can be regulated and funds can be utilized in best possible manner.

⇒ There are closer and strict control on these items which represent a major portion of total stock value.

⇒ It helps in maintaining enough safety stock of C-categories of items.

⇒ The scientific and selective control helps in the maintenance of high stock turnover rate.

How to perform "ABC" Analysis

ABC Analysis can be performed in any existing drug store and procedure is as follows :

1) Taking the list of all items kept in the drug store along with their annual consumption in rupees.

2) Rearranging the list in decreasing order of their annual consumption cost.

3) So items with maximum value will appear in the number one position while the minimal value items appear in last buy list.

4) Finding cumulative cost of each item. The cumulative cost is worked out and is shown against the item in next column categorization of the list into groups A, B and C based on the no: of items or on the cost.

5) If grouping is based on the no: of items, the 1st - 10% of items arranged are grouped into A class, next 20% of items fall into B class while last 70% of items fall into C class and corresponding cost for 3 groups are found for grouping by cost can be carried out by ABC analysis can also be done by concentration on the cost failure, finding the control basis and with scheduled deliveries over a period of time. Ordering can be done on quarterly basis stock and issue records are to be maintained to have a check on consumption factor.

Economic Order Value Quantity (EOQ)

This technique is used to find out how much of the inventory is to be ordered at a time. The correct quantity to buy is the quantity at which the ordering cost and inventory carrying cost is the minimum.

Methods of Determination of EOQ.

→ Tabular determination of EOQ

→ Graphic presentation of EOQ

→ Determination of EOQ by an algebric formula.

$$EOQ = \sqrt{2ab/cs}$$

where, a = Annual consumption
b = buying cost per order
c = cost per unit of material
s = storage and other inventory carrying cost.

Perpetual Inventory System

This is a method of recording the store balance after every receipt and issue to facilitate regular checking and to prevent closing down for stock taking. This system include :

→ Bin card :- this is a register maintained with each item which shows each item received, issued and in stock.

→ Stores ledger :- it is usually maintained in the accounts section.

→ Continuous stock taking :- A limited no: of items are varified physically on each day. This will allow continuous stock varification without affecting normal business or causing shut down.

→ Computer based automatic stock tracking is the advanced system which reduces man power.

Advantages of Perpetual Inventory System

→ It helps in detection and immediate rectification of clerical errors and discrepancies.

⇒ It ensures a reliable checking of the store items in a methodological manner without disturbing the routine work of the enterprise.

⇒ Timely action can be taken on serious shortages.

⇒ It helps in the compilation of profit and loss account and balance sheet on interim dates if required.

⇒ Overstocking and under stocking can be avoided.

Review of slow and non-moving items

Finding out the slow moving items, obselete items, and dormant stock is important to reduce financial loss. Slow moving items are those items which are moving at a slow rate. Dormant items are those items which are moving on items season based dormants demands. Obselete items are those which have become useless due to change in design, method, manufacture and regulatory changes. These methods are used to find out these types of items.

⇒ Periodic report

⇒ Obselete items report

⇒ Moving ratios.

VED Analysis (Vital Essential Desirable)

It is based on the utility of drugs and according to this system, the drugs are classified into 3 categories.

In VED, V stands for Vital, E stands for Essential and D stands for Desirable. Vital items must always be available in the stock because such items can be demanded at any time. Essential items are those items without which the production may come to a standstill, so these items have to be purchased at short notice. Desirable items are those items which are necessary but don't cause any immediate loss. VED system was first developed in Srilanka.

Setting up of various levels

Stock levels : The motive of inventory management is to provide an uninterrupted supply of material and at same time, the investment in materials also should be kept to the minimum possible extends. This can be achieved by maintaining the following stock levels.

Minimum stock level or safety stock :- this is the lower limit below which the stock of any item should not normally be allowed to fall. This level is fixed considering the factors like average rate of consumption and lead time.

Maximum Stock level :- Represents the upper limit beyond which the quantity of any item is not normally allowed to rise. The formula for computing maximum level is

Maximum level = reorder level + reorder quantity - minimum consumption.

Minimum consumption = minimum consumption per week × minimum reorder period.

Lead time :- is the total time consumed between the recognition of the need of an item, till the time it is received for use.

It is the time gap between placing the order for purchase of items to the time of items which are actually received at the stores. Lead time has two components :

1. Administrative lead time
2. Supplier's lead time

⇒ Administrative lead time is the time taken by the administrator for placing the order which includes preparing the quotations inspecting the material and then placing the order.

⇒ Suppliers lead time is the time gap between placements of order to the receipt of goods in the store. Determining the accurate lead time is very important factor in the inventory control. Order should be placed in advance is such a way that at no time the material should be out of stock in the stores otherwise the production comes to a standstill and the business will go to a loss. A great care should be given to the lead time.

Minimum level = Reorder level − (normal consumption per week x average delivery time)

Reorder level :- It is between the minimum and maximum stock levels. The reorder level is usually slightly more than minimum stock level.

Reorder level = Minimum consumption during the period × Maximum reorder period.

Danger level :- This generally below the minimum stock level.

Advantages & Disadvantages of Inventory Control

Advantages :-

⇒ Inventory balance : Good inventory management helps you figure out exactly how much inventory you need.

⇒ Inventory turn-over :- You need to keep a high inventory turnover to ensure your product's aren't spoiling, becoming obsolete or sucking up your working capital.

⇒ Repeat customers :- Good inventory control leads to what every business owner wants repeat customers.

⇒ Accurate planning :- Using smart inventory management you can stay ahead of the demand curve, keep the right amount of products on hand.

Disadvantages.

⇒ Many inventory apps are priced very high, and price is usually an issue for the hardware costs from the companion to its barcode viewers and other parts can also be added to the expense.

⇒ Inventory control software make easier your small business operations but in itself is quite a complicated product.

⇒ Understanding basic can be difficult and time consuming at the same time.

⇒ Medium and small sized forms.