

Inventory Management

Chapter Outline

- Inventory Management
- Inventory Systems
- Computer & Inventory
- Ordering
- Forms
- Stocking & Storing

Inventory Management

- Inventory
- A listing of medication of the goods or items that a business will use in its normal operation.
- Inventory management is an integral part of the technician's job responsibility.

Inventory Management

The goal of inventory management:

- To ensure that drugs are available when they are needed (usually are often urgently needed).
- Purchasing/inventory technician
- A name given to those who are responsible for ordering and maintaining inventory.

Wholesalers

Purchasing

- Usually carried out by either an independent or group process. The Controlled Substances Act (CSA) defines procedures for purchasing.
- Most drugs are bought from wholesalers or distributors.
- More than three-quarters of pharmaceutical manufacturers sales are sold to wholesalers.

Wholesalers

- Thousands of manufactures produce medications and it would be difficult to deal with each of them (ordering, shipping, payment arraignments, paperwork requirement, etc.).
- Stock inventories of the most used medications and make frequent deliveries, often on a daily basis.
- Provide system for ordering, automated purchasing systems, emergency delivery, etc.

The Formulary

The Formulary: Is a list of medications that are approved for use in the hospital or an institution. (or an insurance company)

Open formulary: Allows purchase of any medication that is prescribed.

The Formulary

Closed Formulary: Is a limited list of approved medications.

- A physician must receive permission to use a medication that is not on the list.
- Generally used as a cost savings tool, in which less expensive substitutes are stocked.
- A Therapeutic equivalent that is chemically different but with similar actions and effects may be substituted for a drug not on the formulary.

Inventory Management

The DEA

- Regulates the distribution of controlled substance and has various distribution, inventory, record keeping, and ordering requirements.
- Extemporaneous compounding record.

Inventory Management

- The complete inventory must include an inventory record and an extemporaneous compounding record.
- Schedule II substances must be stocked separately in a secure place and require a special order form for reordering.

Safe Purchasing

- It is important to deal only with well-known or established wholesalers and suppliers who can document the pedigree or path of a drug from manufacturer to consumer.
- Unscrupulous manufacturers can make counterfeit medications, which may look like an established drug, but have little or no active ingredients. They can sell them to lesser known wholesalers or suppliers.

Inventory Systems

Track inventory, forecast needs, and generate reorders to maintain adequate inventory.

- Too many drugs on hand involves unnecessary cost and maintenance and may result in spoilage.
- Too few drugs means that medications won't be available when needed.

Inventory Systems

To maintain an adequate supply of medication, pharmacies use a perpetual inventory system.

- This is a requirement for Schedule II substances.

Order Entry Device

- Portable hand held devices used to order and transmit orders via a telephone line.



The Turnover Rate

Turnover Rate:

- The number of days it takes to use the complete stock of an item.
- Besides quality and spoilage issues, there is also a financial consideration.

The Turnover Rate

□ Financial Consideration:

- “Thirty days net”
- The supplier must be paid by the 30th day from the date of delivery.
- Lower the cost of the stock. When stock turnover averages less than thirty days, the stock is sold before the supplier must be paid.

Inventory Spoilage

- Time or storage conditions may cause chemical compounds to break down.
- Use of such medications may be dangerous.
- Check all stock for their expiration date.
- DO NOT dispense drugs whose expiration date is approaching.
- Expired drugs must be appropriately disposed of or returned to the supplier for credit.

Fast Movers and Slow Movers

- A general rule is that 20% of your stock will account for 80% of your orders or prescriptions.
- To keep inventory dollars low, focus on keeping a 1–2 week supply of fast moving drugs and a month's supply of slower moving drugs.

Tools for Perpetual Inventory

- Point of sale system (POS)
 - An inventory system in which the item is deducted from inventory as it is sold or dispensed.
- Reorder points
 - The minimum and maximum stock levels which determine when a reorder is placed and for how much.

Tools for Perpetual Inventory

- Point of sale system (POS)
- Automated Reports
 - As the minimum reorder point of a medication is reached, most computer systems will generate an automatic purchase order.
- Order Entry Devices
 - Portable hand-held devices used to enter ordering data.

Computer and Inventory

Computer inventory systems

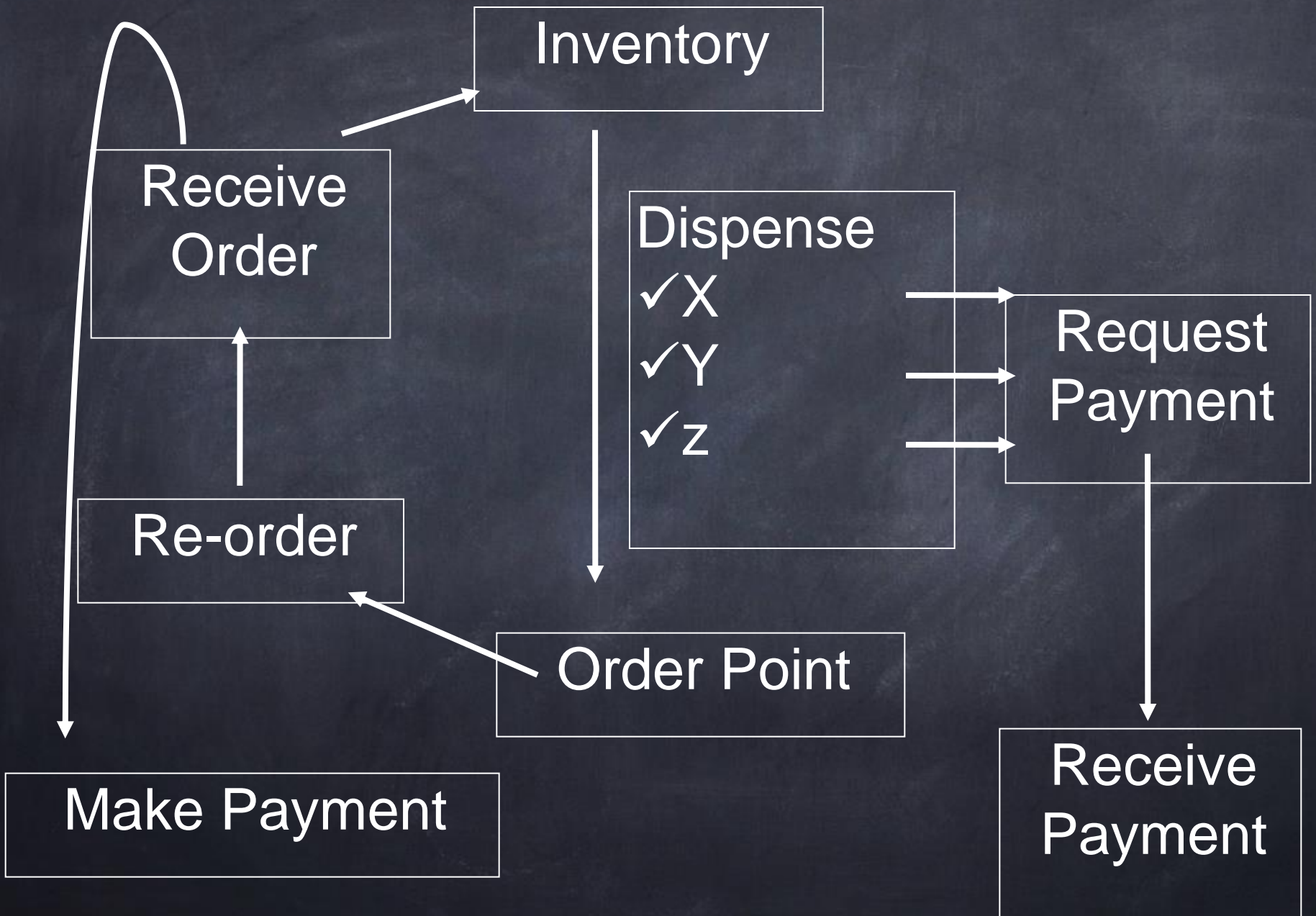
- Automatically adjusts inventory and generates orders based on maintaining set inventory levels.

Entering correct information

- Reports are printed out and reviewed for any errors.

User passwords

- Protect against possible abuses. Users are given passwords to access different features of the system.



Automated Dispensing Systems

Baker Cells®

- Contains cells to hold each medication.
- When a drug is ordered, the device quickly counts the appropriate amount of capsules or tablets in the a prescription vial.
- Technicians keep the cells stocked and must record all lot numbers of drugs used.



Parata RDS® (Robotic Dispensing Machine) Courtesy of Parata Systems, LLC

Pyxis Supply Station®

- Example of an automated point-of-use storage system for making floor stock items available to nurses in the hospital setting.
- The system keeps record of inventory and tracks patient medication.

Homerus® Robotic Device

- Individually packages and stores large amounts of medications from bulk supplies.
- Delivers bar-coded medication to 24 hour patient specific medication bins.
- Returns medication to storage after a patient is discharged.
- Some hospitals have mobile robots that travel throughout the facility delivering drugs to various nursing units and departments.

Automated Ordering

- Orders can be generated using an order entry device or automatically generated by the system based on stock levels and reorder points.
- When the order is ready, the ordering system is sent over the phone lines to the wholesaler.
- If the order can be filled as ordered, a message will automatically confirm the order to the ordering system.
- Material Safety Data Sheet (MSDS) is sent for hazardous substances such as chemotherapeutic agents.

Ordering

- Each supplier has a policy and procedure for credits and returns that must be followed in order to receive the credit.
- There are companies that specialize in returns to the manufacturer of expired drugs and drugs removed from a formulary.
- The documentation must be carefully checked item by item to make sure the order is accurate.
- A printed copy and any electronic version must be kept on file.

Forms

Online Order Screen

- The system automatically assigns a purchase order number.
- The confirmation printout
 - A hard copy print out of a confirmed online purchase by the supplier.
 - Indicates which items will be shipped, which will not (due to unavailability) and what the cost of the items.

Forms

Shipping Invoice

- The list of items in the shipment and the cost of items provided by the supplier.
- Any inconsistencies from suppliers must be notified immediately.

Return form

- A preprinted multipart form. It contains purchase order number, item number, quantity and reason for return.

Stocking and Storing

- Most of medications are received from the supplier in bulk “stock bottles” that contains a large amount (usually 30, 100, 500 units).
- In hospitals, some drugs come in individual doses called Unit dose packaging.
- Technicians prepare unit-dose packaging under the supervision of a pharmacist.



Stocking and Storing

- Most pharmacies shelve drugs by their generic names along with the brand names.
- If generic cimetidine is on the shelf, Tagamet which a brand name may be placed there along with the generic..
- Point of use stations are supply stations, med-stations, or dispensing machines that stock medication.



Community Pharmacy Inventory Management

- Prescription vials returned by the patient CAN NOT be returned to stock, even if they are unopened.
- Why?

Terms to Remember

1. Automated dispensing system
2. Closed formulary
3. Database
4. Formulary
5. Inventory
6. Open formulary
7. Perpetual inventory
8. Point-of-sale system
9. Purchase order number
10. Reorder points
11. Therapeutic equivalent
12. Turnover
13. Unit-dose packaging

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