

Chapter-7

Application of computers in Hospital Pharmacy Practice, Electronic health records, Software's used in hospital pharmacy

Application of computers in Hospital Pharmacy Practice:

Computer plays an important role in development of clinical pharmacy practice and basic pharmacy research. The use of computer in hospital administration and medical research become the need of large hospitals

- Hospital pharmacy is the health care service, which comprises the art, practice, and profession of choosing, preparing, storing, compounding, and dispensing medicines and medical devices, advising healthcare professionals and patients on their safe, effective and efficient use.
- The computer has become a very common tool in all the areas of science and technology.
- The field of pharmacy has immensely benefitted by the use of computers and will continue to do so.
- The complete field of pharmacy requires computers.

Computers have transformed the healthcare industry, including hospital pharmacy practice. Here are some ways in which computers are used in hospital pharmacy practice:

1. Medication Management: Computerized systems are used to manage medication administration, prescription orders, and inventory control. This system can track medication usage, monitor medication errors, and streamline medication distribution.
2. Clinical Decision Support: Pharmacists use computer-based tools to help make clinical decisions regarding drug therapy. These tools provide access to patient records, drug interactions, and patient-specific information.
3. Electronic Medical Records: Electronic medical records (EMRs) allow pharmacists to access patient records, including medical history, medications, allergies, and laboratory results. EMRs allow pharmacists to quickly access and review patient information, which can help to identify drug interactions and ensure appropriate medication use.

Noteskarts

Subscribe & Visit our Website For Notes

4. **Barcode Technology:** Barcoding technology is used to track medication usage and prevent medication errors. Barcodes can be scanned to verify the correct medication, dose, and administration route.
5. **Telepharmacy:** Telepharmacy involves the use of technology to remotely manage pharmacy operations. This technology can be used to remotely verify prescriptions, manage medication orders, and provide medication counseling to patients.
6. **Drug Information Databases:** Computer-based drug information databases provide pharmacists with access to the latest drug information, including dosage guidelines, side effects, and interactions.

Electronic health records:

Electronic health records (EHRs) are digital versions of patients' medical records that are stored and managed electronically. Here are some important notes on EHRs:

- **Benefits:** EHRs have several benefits, including improved patient safety, increased efficiency and accuracy in record-keeping, improved communication between healthcare providers, and better coordination of care.
- **Information included:** EHRs contain a patient's medical history, medications, allergies, laboratory test results, imaging studies, and other relevant medical information. This information is accessible to authorized healthcare providers, which can help to ensure that patients receive appropriate care.
- **Privacy and security:** EHRs must comply with strict privacy and security regulations to protect patient information. Healthcare providers must take steps to ensure that EHRs are secure and that patient information is not accessed or shared without proper authorization.
- **Interoperability:** Interoperability is the ability of different EHR systems to exchange information with one another. Interoperability is important because it allows healthcare providers to access and share patient information across different healthcare settings.
- **Patient access:** Patients have the right to access their EHRs and review their medical information. This can help patients to better understand their health conditions, medications, and treatments.
- **Challenges:** EHRs have also posed several challenges, including the high cost of implementation, the need for staff training and support, and potential technical issues that can lead to errors or downtime.

Software's used in hospital pharmacy:

Hospital pharmacies rely on several software programs to manage their operations efficiently. Here are some of the software programs used in hospital pharmacy:

1. **Pharmacy Information Systems (PIS):** Pharmacy Information Systems (PIS) are used to manage medication orders, medication dispensing, and inventory control. PIS can track medication usage, monitor medication errors, and streamline medication distribution.

Noteskarts

Subscribe & Visit our Website For Notes

2. **Electronic Health Records (EHR):** Electronic Health Records (EHR) are digital versions of patients' medical records that include medication history, allergies, laboratory results, and other relevant medical information. EHRs can improve medication safety by providing healthcare providers with accurate and up-to-date information about patients' medications.
3. **Clinical Decision Support Systems (CDSS):** Clinical Decision Support Systems (CDSS) provide healthcare providers with patient-specific information, including drug interactions, contraindications, and dosage guidelines. CDSS can help healthcare providers make informed decisions about medication therapy.
4. **Barcode Medication Administration (BCMA):** Barcode Medication Administration (BCMA) is used to track medication administration and prevent medication errors. BCMA uses barcode scanning technology to verify the correct medication, dose, and administration route.
5. **Automated Dispensing Cabinets (ADC):** Automated Dispensing Cabinets (ADC) are used to store and manage medication inventory in hospital pharmacies. ADC can help to reduce medication errors, improve medication tracking, and increase efficiency in medication dispensing.
6. **Inventory Management Systems:** Inventory Management Systems are used to track medication inventory levels, expiration dates, and reorder points. These systems can help to ensure that the pharmacy has the necessary medications on hand to meet patient needs.