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Research Article

**UTILIZATION OF COMPUTERS IN ENHANCING CLINICAL
PHARMACY & IT'S PRACTICE**

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Abstract:

In this article first we try to understand the responsibilities dealt by clinical pharmacist and the role computers are playing in enhancing clinical pharmacy profession. Clinical pharmacists serving as reliable scientific information resource are trained & experienced professionals in patient care & medication management. They collect huge data for fulfilling various tasks such as drug optimization, information building on usage of medication & disease prevention and also maintaining health outcomes of patient's. With such a huge task requiring computers has become part of their profession & practice. In detail we discuss how advantageous proven on utilization of computers along with their area of applications.

Keywords: clinical pharmacy, computers, patient care, medication management.

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INTRODUCTION:

Clinical pharmacy one of pharmacy branch are the resource persons for the medications used in terms of its selection, safety and economic-friendly to patient for the entire treatment.

Qualification required for practicing this profession are

- Pharm.D.
- M. Pharm Along with hospital practice.
- M. Pharm Specialization in (Hospital and Clinical Pharmacy).

Key-Role played by clinical pharmacist:

- ❖ Complete data regarding patient.
- ❖ Problem identification.
- ❖ Preparation of good therapeutic plan establishes outcome goals.
- ❖ Continuous evaluation done by monitoring for treatment alteration and further modify therapeutic plan.
- ❖ Preparation of specialized patient drug regimen.
- ❖ Treatment outcomes of patient.
- ❖ Easy for professional & clinical auditing.

The various ways were computers come in handy to clinical pharmacist are as follows.

In therapeutic drug monitoring to variate drugs which are potent in nature, having narrow therapeutic range anticonvulsants, cardiac glycosides) they help calculating dose according to the needs of patient.

They take applications like MS-Excel in maintenance of the drug information & storage of numerical ad other data relating to patient and retrieval procedure. Focusing on the advantages on its utilization are given below

Advantages:

- Reducing order cost.
- Inventory management
- Managing reports
- Efficient in order processing.
- Identification of drug allergies due to interactions.
- Cost reduced Bill preparation & insurance claims.
- Less or no transcription & medication error.
- Adverse drug reactions recording.
- Medical research.
- Building data base.
- Pharmacy automated drug interaction screening system.

- Teaching techniques to practice (education resources, practice sessions, virtual meetings, assessments, patient counseling assisting, case studies preparation, effective interactive learning connectivity sessions).
- Telepharmacy and Telemedicine.
- Medication barcode scanning.
- Computerized physician order entry helpful in easy retrieval of patient record & avoid duplication of prescription entry.

Patient record management includes Name, age, height, weight, attending physician/doctor, on-going treatment, diagnosis profile, allergies and ay special note regarding patient.

Medication order includes drug name, its generic name, physician/ doctor code, administration route, dosing strength and schedule.

Drug order entries help in filling the prescribers list and renewal it.

Interactions between drug-drug, drug-food easily detected and notified priorly.

Automated ambulatory medical record system maintained (bill generation, storage, accounting, personal patient record for reference).

Clinical research & practice software's used is as follows:

Abacus Pharmacy Software,
PioneerRX,
Backstage,
PROscript 2000,
McKesson EnterpriseRx,
Yardi eMar,
Cerner Retail Pharmacy,
PrimeCare LTC and FrameworkLTC,
WellSky CareTend.

Clinical data management system software applications include as follows:

Merative Clinical Development,
Bioclinica ICL,
Oracle Clinical One,
IQVIA Digital Site Suite
Dotmatics Enterprise Data Platform.
SPSS (statistical package for social sciences)
SAS (statistical analysis system)

In Literature retrieval computers extensively used for their

- ❖ Efficiency

- ❖ Timeliness
- ❖ Comprehensiveness
- ❖ Search precision.
- ❖ Access to full text.
- ❖ Decision support systems easy integration.
- ❖ Multimedia content.
- ❖ Customization.
- ❖ Collaboration.
- ❖ Analysing data from given wide resources.
- ❖ Education
- ❖ Quality maintenance.

CONCLUSION:

With the evident information of computers usage and integration in clinical practice along with research have enhanced the efficiency, accuracy and timely submission of the analyzed data and statistical software application has revealed a wide scope of utilization and time to time updating its software technology has advanced the healthcare making it available to mass population at a time and quality based.

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