



DRUG INFORMATICS

FACULTY OF PHARMACEUTICAL SCIENCES

LECTURE 1

Objectives

1. Define the term drug information, use it in different contexts, and relate it to the term medication information.
2. Describe the importance of drug information centers in the evolution of pharmacy practice.
3. Identify the services provided by drug information centers.
4. Identify medication information functions performed by individual pharmacists.

Objectives

5. Describe the skills needed by pharmacists to perform medication information functions.
6. Identify major factors that have influenced the ability of pharmacists to provide medication information.
7. Describe practice opportunities for a medication information specialist.

HISTORY

- The **term drug information** developed in the **early 1960s** when used in conjunction with the words center and specialist (the individual responsible for operation of the center).
- In 1962, the **first drug information center** was opened **at the University of Kentucky Medical Center**. An area separated from the pharmacy was dedicated to provide drug information. The center was to be "**a source of selected, comprehensive drug information for staff physicians and dentists to evaluate and compare drugs**" as well as to provide for the drug information needs of nurses.

HISTORY

- The center **was expected to take** an active role in the education of health professional students including medicine, dentistry, nursing, and pharmacy. A **stated goal was** to influence pharmacy students in developing their role as drug consultants.
- Several **other drug information centers were established shortly thereafter**. Different approaches to providing drug information services included decentralizing pharmacists in the hospital, offering a clinical consultation service, and providing services for a geographic area through a regional center. The first formal survey, conducted in 1973, identified 54 pharmacist operated centers in the United States.

WHY DRUG INFORMATION CONCEPT IS IMPORTANT?

1. Availability of **authentic drug information** is the key to promote **rational use of drugs**, a well-accepted concept in clinical practice in the developed world.
2. The concept is fast catching up in several developing countries because of the sharp rise in the medical costs and **increasing instances of medication errors**.

WHY DRUG INFORMATION CONCEPT IS IMPORTANT?

3. Cost-related issues:

- An important reason for the rising of the medical costs in developed countries is the **marketing exclusivity enjoyed by pharmaceutical companies** for their latest life-threatening drugs.
- The drugs continue to be the major part of the total healthcare costs.
- With **high of patented drugs** and the **strong influence of pharmaceutical companies prices** on medical practitioners, the healthcare costs **can only rise in future**.

WHY DRUG INFORMATION CONCEPT IS IMPORTANT?

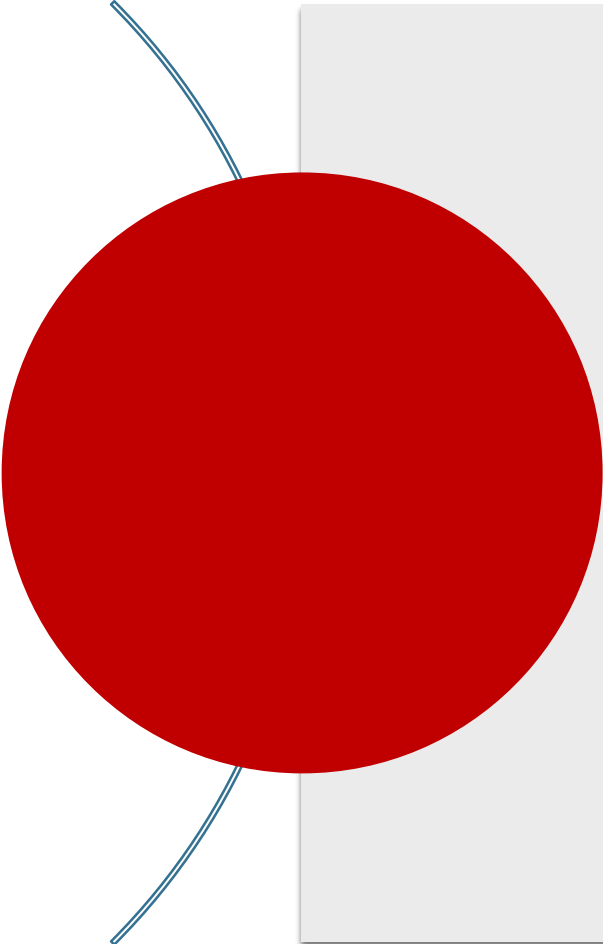
3. Cost-related issues:

- For **pharmaceutical companies**, pushing up **their sales** is the sole aim whereas a large majority of the physicians can be easily coaxed into indulges in irrational prescription to serve the interests of these companies.
- The **absence of insurance cover for a large number of poor people** both in the undeveloped and developing world also adds to overall healthcare costs.

WHY DRUG INFORMATION CONCEPT IS IMPORTANT?

4. Medication errors by the physicians is another serious problem confronting the patient community today as :
- The knowledge level about **new drugs and adverse drug reactions (ADR) is extremely poor amongst physicians.**
 - Thus, several hundreds of cases of complications and deaths are being reported every year in various parts of the world on account of medication errors.

IN CONCLUSION



One way to control medical costs and medication errors is to promote the concept of rational use of drugs by providing authentic drug information to doctors, pharmacists, nurses, researchers, other professionals in health care, committees and patients.

DRUG INFORMATION CENTER

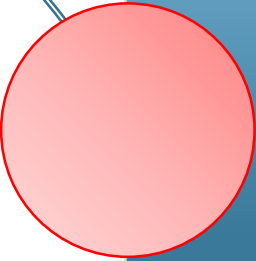
❖ **Drug information** is an essential element in achieving health goals and should, therefore, form a **part of any national drug policy**.

DRUG INFORMATION CENTER

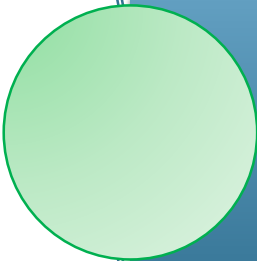
❖ Information is an **aid to decision making**. As mentioned before the first information center to be set up was at the **University of Kentucky Medical Center, USA, its objectives** were:

1. Collecting information.
2. Evaluating and comparing drugs.
3. Providing an education and teaching aid for health care personnel.
4. Assisting clinicians in the selection of safe and effective medication.
5. Enabling pharmacists and pharmacy students to develop their abilities in providing information on drugs and medicines.

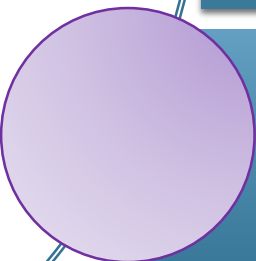
DRUG INFORMATION CENTER



Large hospitals have developed and staffed a new division of the department of pharmacy which is commonly referred to as '**Drug Information Center**'.

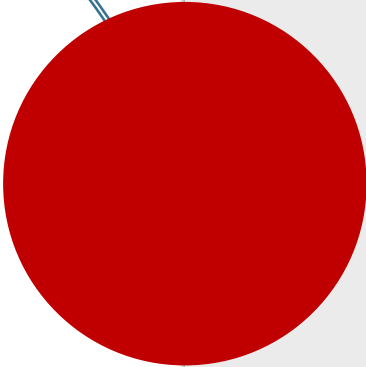


This new concept in hospital pharmacy operation is usually located in **a separate section of pharmacy**, containing large number of reference texts, journals, reprints and brochures.

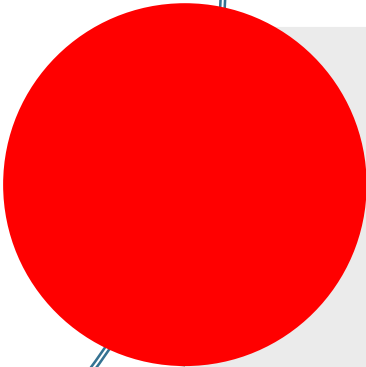


They are also **equipped** with electronic data processing equipment and have a full time **director** and adequate secretarial **assistance**.

DRUG INFORMATION CENTER



Now **computers** **have** **possible networking** of regional drug information centers made located in different hospitals.



Networking on regional, national, sub continentals, intercontinental levels had placed **Drug Information Services at a global level.**

PHARMACY PRACTICE

- The description of pharmacy practice was **expanded** from that of pharmacy as a “knowledge system” to “**a system (framework) of concepts dealing with the acquisition, translation, transmission, and utilization of drug knowledge**”.
- As a specific component of pharmacy, the drug information role is characterized by the ability of the pharmacist to:
 1. Perceive, assess, and evaluate drug information needs.
 2. Retrieve, evaluate, communicate, and apply data from the published literature and other sources as an integral component of pharmaceutical care.
- The ability to **fulfill the drug information role is essential to successful pharmacy practice.**



THANK YOU