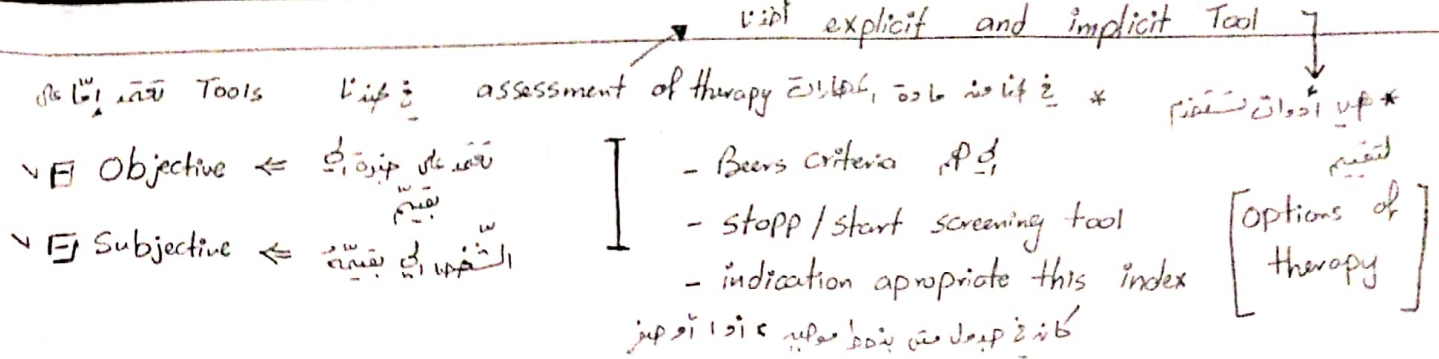




Introduction to Drug Information

Faculty of Pharmaceutical Sciences

The Hashemite University

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⌘ evidence

Professional ⇐ Professional

advance ⇐ advance

حاجب
سؤال وجواب
هليلج

Objectives

- Define the term drug information, use it in different contexts, and relate it to the term medication information.
- Describe the importance of drug information centers in the evolution of pharmacy practice.
- Identify the services provided by drug information centers.
- Identify medication information functions performed by individual pharmacists.
- Describe the skills needed by pharmacists to perform medication information functions.
- Identify major factors that have influenced the ability of pharmacists to provide medication information.
- Describe practice opportunities for a medication information specialist

Summery

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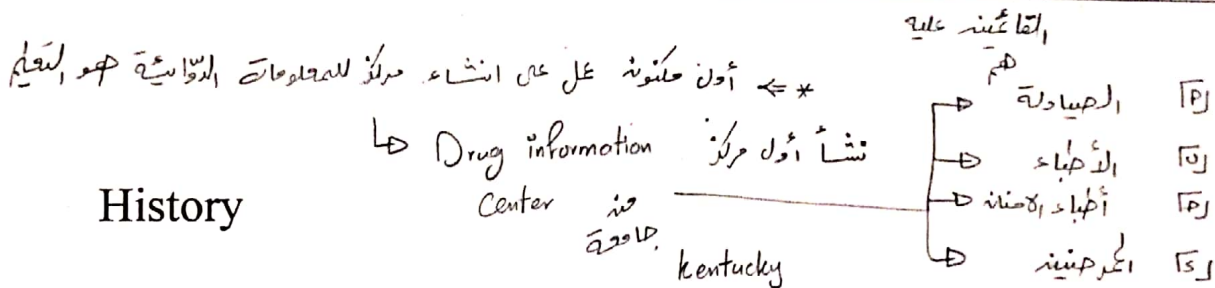
- The pharmacist's role in providing information on drugs and medicines is not new. When drugs were few in number and generally of relatively low potency the number of inquiries was small and could usually be answered quickly by reference to pharmacopoeias and formularies.
- In recent years, the number of drugs and medicines has increased enormously which are usually more potent and more selective and also the literature relating to drugs has expanded at a staggering rate.
- The literature covers a wealth of information on these newer drugs, their actions, clinical uses, unwanted effects, interactions with other drugs, comparative efficacy, etc.
- A quick reference to pharmacopoeia and formularies is no longer sufficient, in many cases, to provide an adequate answer.

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History



- The term drug information developed in the early 1960s when used in conjunction with the words center and specialist.
- 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**. 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.

كانت وظيفة
المقدمة
المقدمة
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4

إذا كنا نريد أن نكون دواء معلوماتي

Drug information center

المقدمة

المقدمة

المقدمة

المقدمة

* Drug information من شوا، لفائدة من

* rational drug use ←

هو المصطلح الأكاديمي في شغل

منه استخدام الدواء الصحيح للدواء
لأنه أكثر من استئصال

استخدام جميع الدواء

Why drug information concept is important?

effectiveness
and efficacy

- 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.

← two concepts ←

- 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**.

Cost related issues:

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

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study

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الشركات التي لديها براءات اختراع
لأدوية جديدة، فإنها تحصل على حقوق
استخدامها وحماية

لأنه لا يوجد دواء جديد
لأنه لا يوجد دواء جديد

$x =$ مثلاً الأجر

السعر المقترح للدواء = صافي الأجر

$10x$

السبب أنه في
مرحلة 3 (Phase 3 study) دواء جديد

- 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.

* Medication errors

by the physicians is another serious problem confronting the patient community today as 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.

* استراتيجية تسعير جديدة ومهمة

Pricing strategy ←

إذا كان الدواء

[Patent]

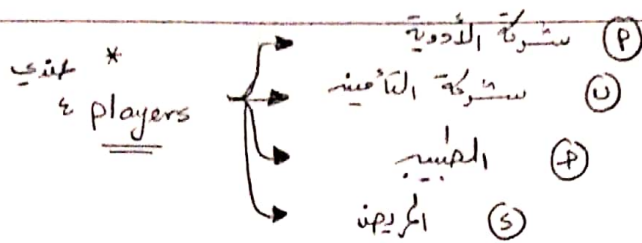
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بعد 4-5 سنوات

تدريجياً
لأنه لا يوجد دواء جديد

الأدوية الجديدة
generic
Potent

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cycle
Decline
له كما دمج generic



مصادر المعلومات
المصنعة بروتوكولا
عليها الل

هل هناك الدوا يدخل على
التأمين ولا لا ؟

ليس هناك الدوا يمنع ومسته منع وفيليت

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 related errors (Problems)

كانت عندي أنظمة زي
الأصباغ / ألماي / هولندي / سويسري
واحتقرينا على النظام الأوروبي
PCNE

عربي
بالاعتناء

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Drug Information Center

- Drug information is an essential element in achieving health goals and should, therefore, form a part of any national drug policy.
- 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
 - ✓ to collect information,
 - ✓ to evaluate and compare drugs,
 - ✓ to provide an education and teaching aid for health care personnel,
 - ✓ to assist clinicians in the selection of safe and effective medication and to enable pharmacists and pharmacy students to develop their abilities in providing information on drugs and medicines.

مركز البحوث للأدوية
Center

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8

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.

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.

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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 perceive, assess, and evaluate drug information needs

And : 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.

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* الإجابة على سؤال نافع ← احتمال كبير الجواب يكون نافعاً
(Drug informatics) مهارات استقبال السؤال منه مهارات

عليه التأسيس
المريض لا

Drug
information

فيه مراحل كثيرة

قواعد جزئية

المفهوم
عام

Body of facts and Body of Data

قواعد

(Drug literature)

أي اسم
في المعلومات

evidence

resources

A broad definition of DRUG INFORMATION

skills
معرفة

Drug information is both:

... قواعد جزئية قواعد Pharmacist
التي ينتقل من قواعد إلى الجواب

- a body of data and information about medications
- and a set of skills and tools that provide pharmacy professionals with the ability to find, access, understand, interpret, apply and communicate information and acquire knowledge.

□ The body of facts and information pertaining to medications is generally referred to as "**the drug literature**".

- The literature of pharmacy and pharmaceuticals encompasses all aspects of drugs, beginning with isolation or synthesis, including physical analysis, bioactivity, toxicology, clinical research, market research, and economic and social considerations.
- The drug literature, reflecting all the individuals who create it and use it, such as chemists, biomedical scientists, all the various health care professionals, attorneys, and patients, is vast and complex.

9/29/2019/

9/29/2019/ قواعد الأدوية قواعد الأبحاث قواعد
[X] جمع المعلومات قواعد معلومات قواعد الأدوية قواعد الأبحاث قواعد
قواعد الأدوية قواعد الأبحاث قواعد

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- Different kinds of publications are available in the library like journals, abstracting and indexing publications, books, compendia, monographs, patents proceedings, reviews, FDA-approved labeling (package inserts), house organs, newsletters, promotional literature, government documents, and analysis by consulting services.
- Drug information skills coupled with the processes and technology offered by informatics are part of the solution to mastering information overload and maintaining the knowledge system that improves patient care outcomes.

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Information Needs

- The growth in the role played by science in medicine as reflected in:
 - the amount of published work,
 - the number of journals
 - and the vast range of drug products in the market,

has meant that practitioners of medicine and pharmacy, in common with other scientific disciplines, have experienced difficulty in keeping up with advances in knowledge.

- The doctor's response, increasingly, has been to turn to the pharmacist for help.
- Most problems presented by the doctor are concerned with a particular patient, his disease-state and therapy.
- The information requested is usually required within few hours, so that treatment may be changed or started and is needed in the form of data, rather than lists of references or paper reprints.
- Production of an answer therefore involves selection, interpretation and evaluation of information.
- The type of information requested may include any of the chemical or biological properties of a compound or a comparison of the suitability of several compounds for a specific case, where for instance, renal or hepatic disease may complicate choice.

- **The pharmacist too, may require immediate information on drugs, this may concern straightforward matters such as dosage or availability but also involve formulation or availability data which may not be found in the manufacturer's literature.**
- Quality controllers may require an alternative assay or stability data.
- **Nurses** need to know the effects and dangers of drug therapy so as to be able to assess the appearance of adverse effects, they must also know enough about preparations to teach patients to use them.
- **Researchers** need to retrieve a particular report, or search the literature.
- **Committees** need information to help them decide policies, produce 4 hospital formularies and award contracts.
- **Patients** need to know how to take the medicines they are given, what they will feel if the drug works, likely adverse effects and what to do about them.

Measuring and accurately identifying the nature of the need is, however, not easy.