

INTRODUCTION TO CLINICAL AND COMMUNITY PHARMACY: DRUG DISTRIBUTION SYSTEMS

Dr. Riyadh Mustafa
MBChB MD FICMS (Med.)

WHAT IS THE DRUG-USE PROCESS?

- ▣ The drug-use process is complex.
- ▣ It is the process of storing, distributing, prescribing, dispensing, administering, using, controlling, and monitoring drugs and their effects and outcomes.

DRUG DISTRIBUTION

- ▣ There are four types of medication: (1) prescription drugs, (2) controlled substances, (3) over-the-counter medication (OTCs), and (4) investigational drugs.
- ▣ *Prescription medication* is only available when the pharmacist receives a legal prescription or drug order from a licensed prescriber. Prescription medication is sometimes called *legend medication*.

DRUG DISTRIBUTION

- ❑ *Controlled substances*, which are also “prescription-only products,” are drugs classified by the U.S. Drug Enforcement Agency (DEA) as being addicting or misused. These drugs have varying levels of control on their distribution and use based on the drug’s addiction liability and potential for abuse.
- ❑ *Over-the-Counter (OTC) drugs* may be sold without a prescription. Some of these drugs may have started out as a prescription drug and have been converted to OTC status after being found to be safe. Patients seeking an OTC medication for a health problem present a good opportunity for pharmacists to guide and help patients.

DRUG DISTRIBUTION

- ▣ *Investigational drugs* are drugs that are being investigated and not yet approved by the FDA for marketing. They are also defined as drugs labeled with the legend “Caution: New drug, limited by Federal Law to investigational use.”
- ▣ All drugs must make their way safely and efficiently from the manufacturer to the physician (all drugs), the doctor (all drugs), nonpharmacy retailer (OTCs), or the investigator (prescription and investigational drugs).

Self-care and The Role of Over-The-Counter Medication

- ▣ It is important for pharmacists and pharmacy technicians to understand illness and the patient's reaction to it. Seldom do people go to a physician when they first get sick; at least not right away.
- ▣ Most people see how they are feeling and how the illness progresses. Some will deny they are ill. Some will seek the advice of family or friends. Still others will take control and seek out as much information as they can about their problem.

SELF-CARE

- ▣ People taking a more active role in their health care form a new generation of patients. The partnership between these types of patients and health care providers is termed *lifestyle medicine*.
- ▣ Documentation of increased interest in self-care is witnessed by the many self-help books, TV programs, newspaper articles, and talk shows covering the topic.

SELF-CARE

- ▣ Almost 7 of 10 consumers prefer to fight symptoms without taking medication, if possible. Among consumers, 85% believe it is important to have access to nonprescription medication.
- ▣ About 9 of 10 consumers realize they should take medication only when necessary. Of consumers who ended the use of their nonprescription medication, 90% did so because their medical problem or symptoms resolved.
- ▣ Even though a medication may be available without a prescription, almost 95% of consumers agreed that care should be taken when using it.
- ▣ Nearly 93% of consumers report that they read instructions before taking a nonprescription medication for the first time.

OTC MEDICATION

- ▣ Some ill patients and those who experience a health problem will find their way to a pharmacy to browse the OTC aisle for a cure. Many will try reading the labels of various OTC medications to see if the medication will cure what ails them.
- ▣ Unfortunately, this approach to self-medicating is incomplete and imperfect.

OTC MEDICATION

- ▣ How does the person seeking an OTC remedy know what they are suffering from?
- ▣ How do they know if the problem is self-limiting, or if they need to see a physician, or even still, if they need to go directly to an emergency room?
- ▣ How do they discover if the product they are about to buy will work for the problem they are experiencing, or if there is something better?
- ▣ The system of self-medication becomes better if the patient seeks the advice of a pharmacist in their search for relief of their problem.

OTC MEDICATION

- Pharmacists can do the following for these patients:
 - Try to identify the real problem.
 - Determine the seriousness of the problem.
 - If serious, refer the patient to their physician, to an emergency room.
 - If the condition is self-limiting, recommend the best OTC product or other treatment.
 - Recommend how the product should be used to have the best results.
 - Offer to be available for follow-up.

Should there be a third class of drugs?

- ▣ The danger with OTC use is that patients may try to self-medicate with the wrong medication, or need to seek medical attention rather than self-medicate.
- ▣ As stated before, most OTCs are sold in places other than retail pharmacies. Therefore, there may be a health care risk. How big a risk is unknown and needs study. If the risk is larger than expected, one solution may be a third class of drugs.

Should there be a third class of drugs?

- ▣ Many countries in the world have a third category of drugs — drugs available on the advice of a pharmacist but without a prescription (RPh-only drugs).
- ▣ There probably are some OTC drugs that should be in this category, and some Rx drugs that can be switched to this category.
- ▣ It would also be safer for the FDA to move Rx drugs to RPh-only drugs for a period of time before giving them OTC status.

PRESCRIBING DRUGS

- ▣ An important part of the drug-use process is how drugs are prescribed. This involves a process that is more complex than most people realize. It starts with a patient need and the prescriber's — usually a physician or dentist — willingness to help.
- ▣ In some states, the prescriber might be a physician's assistant or nurse practitioner; however, these categories of health care workers have limited prescribing privileges.

THE PRESCRIPTION

- ▣ If the condition warrants a prescribed medication, the drug is ordered using a prescription. A *prescription* — the slang term is *script* — is an order by a prescriber requesting the pharmacist to *dispense* — prepare, package, and label — specific medication for a patient at a particular time.
- ▣ Before the 1960s, most prescriptions were written using Latin phrases and symbols. Thus, physicians and pharmacists needed to know Latin. Although some Latin terms are still used today, most prescriptions are poorly written English that looks like Latin.

THE PRESCRIPTION

- ▣ The prescription may be written on a prescription blank — a piece of paper, usually 4 by 6 inches, preprinted with terms, lines, and space to write information.
- ▣ However, there is no legal requirement that the information be on such a form.
- ▣ Most prescriptions can be provided to the pharmacist orally. It should be documented in the prescriber's records that the medication was ordered for the patient.
- ▣ The pharmacist, on receiving an oral *prescription* from a prescriber, must, under legal requirement, immediately record the prescription in writing.