

chapter 1

Introduction to Pharmacology

Objectives

AFTER STUDYING THIS CHAPTER, THE STUDENT WILL BE ABLE TO:

1. Differentiate between pharmacology and drug therapy.
2. Differentiate between generic and trade names of drugs.
3. Define a prototypical drug.
4. Select authoritative sources of drug information.
5. Discuss major drug laws and standards.
6. Differentiate the main categories of controlled substances in relation to therapeutic use and potential for abuse.
7. Discuss nursing responsibilities in handling controlled substances correctly.
8. Discuss the role of the Food and Drug Administration.
9. Analyze the potential impact of drug costs on drug therapy regimens.
10. Develop personal techniques for learning about drugs and using drug knowledge in client care.

Critical Thinking Scenario

This is your first semester of clinical nursing. This quarter you will be taking a basic nursing theory course, a skills laboratory, and pharmacology. You anticipate that pharmacology will be challenging. To increase your clinical knowledge and ensure that you will be a safe practitioner, you want to develop a strong foundation in pharmacology.

Reflect on:

- ▶ List successful strategies you have used in the past to learn difficult material. Reflect on which strategies might be helpful this semester.
- ▶ Assess support for your learning at your school (eg, learning center, peer tutors, student study groups) and develop a plan to use them.
- ▶ Review your course syllabus and pharmacology text. Develop a learning plan (eg, readings, assignments, study times for major tests) and enter this plan into your calendar.

A MESSAGE TO STUDENTS

You've probably been taking medicines and seeing other people take medicines most of your life. Perhaps you've given medicines to your children, parents, grandparents, or others. Have you ever wondered why it's usually okay to give children Tylenol but not aspirin? Why a lot of middle-aged and older people take an aspirin a day? Why people with high blood pressure, heart failure, or diabetes take ACE inhibitors and what ACE inhibitors are? When an antibiotic should NOT be prescribed for an infection?

You are embarking on an exciting journey of discovery as you begin or continue your study of pharmacology. Much of what you learn will apply to your personal and family life as well as your professional life as a nurse. The purpose of

this book is to help you learn about medicines and the why, what, how, when, and where they are used in daily life. Bon voyage!!

OVERVIEW

Pharmacology is the study of drugs (chemicals) that alter functions of living organisms. *Drug therapy*, also called pharmacotherapy, is the use of drugs to prevent, diagnose, or treat signs, symptoms, and disease processes. When prevention or cure is not a reasonable goal, relief of symptoms can greatly improve quality of life and ability to function in activities of daily living. Drugs given for therapeutic purposes are usually called *medications*.