

Chapter 1

Drug Definitions, Standards, and Information Sources

Lesson 1.1

Objectives

- Define *pharmacology*.
- Differentiate among the chemical, generic, and brand names of drugs.

Foundations of Pharmacology

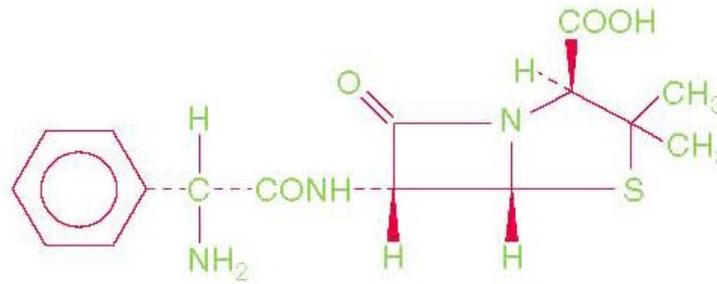
- Pharmacology deals with the study of drugs and their actions or effects
- Greek in origin, meaning drugs and science

Foundations of Pharmacology (cont.)

- Therapeutic methods are approaches to treating illnesses
 - Diet therapy
 - Drug therapy
 - Physiotherapy
 - Psychotherapy
- Therapeutic methods are often used in combination

Naming of Drugs

- Chemical name



Naming of Drugs (cont.)

- Generic name
 - Important to know because formularies use them
 - Not capitalized
- Official name
 - Listed by FDA
- Brand or trademark
 - Registered by manufacturer
 - Capitalized

Audience Response Question 1

- Which name(s) of a drug should the nurse use when teaching a patient with a new prescription?
 - A. Trade
 - B. Generic and trade
 - C. Generic and chemical
 - D. Official

Drug Classification

- Body system classification (cardiovascular, gastrointestinal, etc.)
- Therapeutic use or clinical indications (antacids, antibiotics, etc.)
- Physiologic or chemical action (anticholinergics, calcium channel blockers, etc.)

Further Classifications

- Prescription: require an order by a health professional licensed to prescribe drugs
- Nonprescription: over-the-counter (OTC) drugs sold without a prescription
- Illegal or recreational drugs: used for non-therapeutic purposes; obtained illegally

Lesson 1.2

Objectives

- List official sources of American drug standards.
- List literature resources for researching prescription and nonprescription drugs.
- Cite sources of credible drug information on the Internet.

Resources for Drug Information

- Official source for American drug standards
 - The *United States Pharmacopeia (USP)/National Formulary (NF)*
 - *USP Dictionary of USAN and International Drug Names*
- Sources for prescription and nonprescription drugs
 - Package inserts
 - Nursing journals

Audience Response Question 2

- Which source of information is best for the nurse to obtain drug information?
 - A. *Physicians' Desk Reference* (PDR)
 - B. Nursing journals
 - C. *United States Pharmacopeia* (USP) and *National Formulary* (NF)
 - D. Electronic databases

Common Sources of Drug Information

- Electronic databases
 - Cumulative Index of Nursing and Allied Health (CINAHL)
 - Lexi-Comp
 - ePocrates
 - DailyMed
 - <http://dailymed.nlm.nih.gov>

Objectives

- List legislative acts that control drug use and abuse.
- Differentiate among Schedule I, II, III, IV, and V medications, and describe the nursing responsibilities associated with the administration of each type.

Legislation Regarding Drug Use

- Federal Food, Drug, and Cosmetic Act (1938, 1952, 1962)
- Controlled Substances Act (1970)
 - Defined five classifications or schedules of controlled substances
 - Schedule I
 - Schedule II
 - Schedule III
 - Schedule IV
 - Schedule V

Audience Response Question 3

- Which entity is responsible for monitoring drug safety in the United States?
 - A. Drug Enforcement Agency (DEA)
 - B. Department of Justice (DOJ)
 - C. U.S. Food and Drug Administration (FDA)
 - D. World Health Organization (WHO)

Audience Response Question 4

- Which drug schedule indicates drugs with the highest risk for abuse?
 - A. Schedule I
 - B. Schedule II
 - C. Schedule III
 - D. Schedule IV
 - E. Schedule V

Controlled Substances

- Manufacturers, prescribers, and dispensers must register with the DEA
 - Requirements must be met to dispense scheduled medications
- Controlled substances in hospitals
 - Inventory and dispersion control records

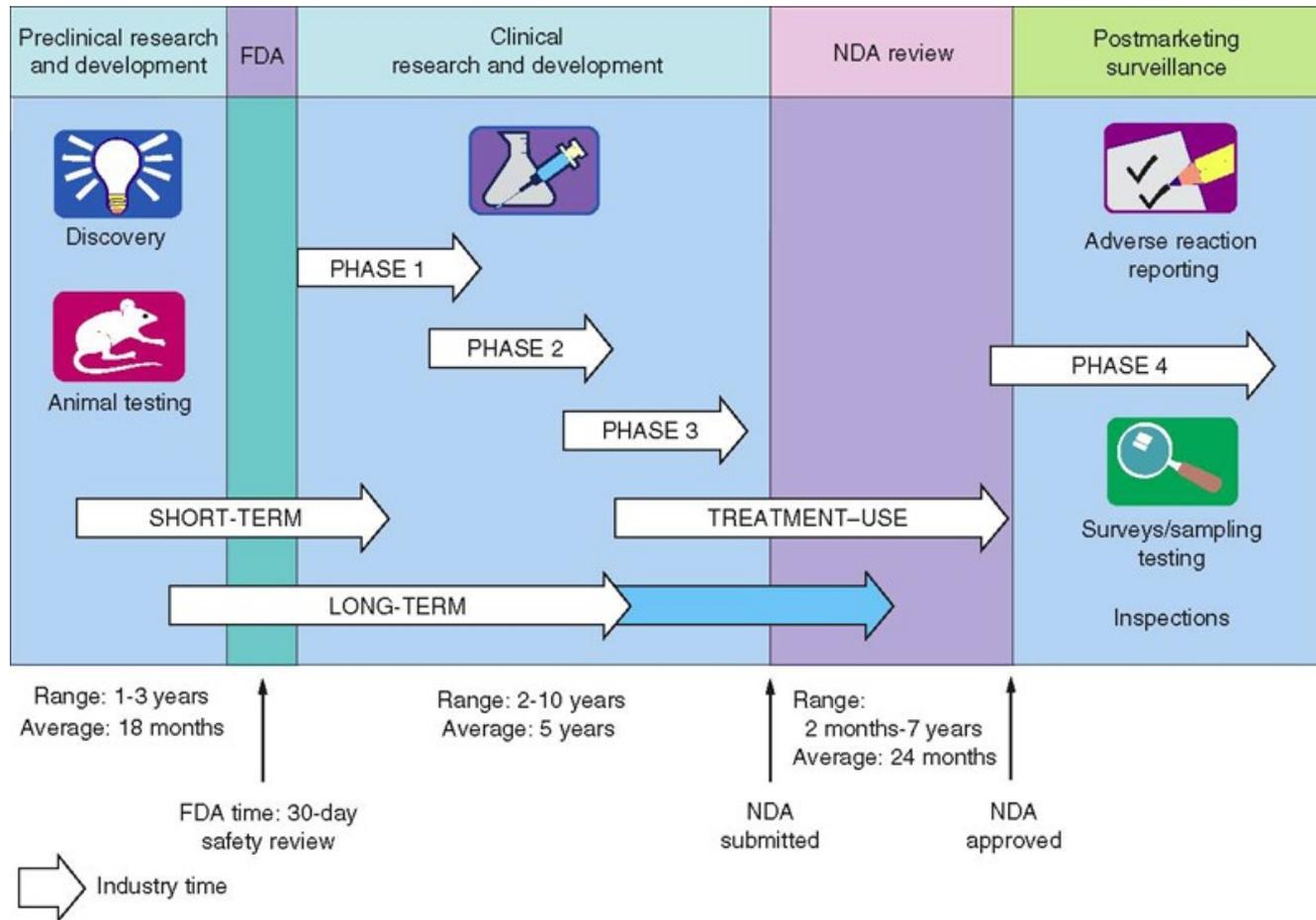
Controlled Substances (cont.)

- Possession of controlled substances by individuals
 - Nurses may not have controlled substances in their possession
- Effectiveness of drug legislation

Objective

- Describe the process involved in developing and marketing new medications.

Developing and Marketing New Drugs



Tracking

- Fast-tracking used to expedite drug development and approval for life-threatening illnesses
- Parallel-tracking used for patients with life-threatening illnesses who cannot participate in controlled trials and there is no other alternative

Postmarketing Surveillance Stage

- Ongoing review of adverse effects of new drugs
- Black Box warning
 - Indicates a very serious life-threatening problem

Audience Response Question 5

- How many years on average does it take for a drug to be brought to market from the time of its conception?
 - A. 2 to 3
 - B. 4 to 7
 - C. 8 to 15
 - D. 12 to 18

Lesson 1.3

Objectives

- Differentiate between the Canadian *chemical drug* name and the *proper name* of a medicine.
- List official sources of Canadian drug information.
- List Canadian legislative acts that control drug use and abuse.

Canadian Drug Names

- Official drug name
 - Any drug described specifically in the Food and Drug Regulations; there are some dissimilarities in brand names between Canada and the US
- Proper name
 - Nonproprietary or generic name used to describe an official drug in Canada

Sources of Drug Information (Canada)

- *Compendium of Pharmaceuticals and Specialties (CPS)*
- *Patient Self-Care: Helping Patients Make Therapeutic Choices*
- *Compendium of Self-Care Products (CSCP)*
- *Therapeutic Choices*

Legislative Acts

- Food and Drugs Act (1927), Food and Drug Regulations (1953, 1954, 1979)—protect the public in Canada through the Therapeutic Products Directorate
- Schedule F—drugs that require a prescription and are not under the controlled drugs schedule

Legislative Acts (cont.)

- Controlled Drugs and Substance Act (1997)—establishes requirements for the control and sale of narcotics and substances of abuse in Canada