

## Chapter 2: Basics of Pharmacology

### LO Learning Objectives

- 2.1 **Define** key terms.
- 2.2 **List** the four steps in the drug cycle and their effects on the body.
- 2.3 **Compare** and **contrast** the usefulness of different drug resources.
- 2.4 **Differentiate** between a side effect and an adverse reaction.

### Lesson Materials

#### *F.A. Davis Materials*

- Watkins Pharmacology Clear & Simple, 2nd Ed. text
- *DavisPlus*
- Calculating Drug Dosages CD-ROM

#### *Additional Materials*

- Syllabus
- Student's Guide
- Notebook or digital device
- Additional resources

### Lesson Outline

- **Agenda** (45 minutes)
  - Opener (5 minutes)
    - Review Lesson 3
  - Lecture and class discussion (30 minutes)
  - Lecture review and homework assignment (10 minutes)
- **Opener** (5 minutes)
  - Warm up and review Lesson 3 **TT.1**
- **Lecture and class discussion** (30 minutes; text pages 13–21)
  - LO 2.1 • Key Terms
    - Absorption
    - Adverse reaction
    - Agonist
    - Antagonist
    - Biotransformation/Metabolism
    - Distribution

### Resources

Watkins Pharmacology  
Clear & Simple, 2nd Ed.  
text

#### DavisPlus Instructor account:

- PowerPoint Presentations (PPTs)
- Test Bank
- Medication Administration/Pharmacology Competencies
- Documentation Exercises
- Instructor's Guide (IG)

- Excretion
- Half-life
- Idiosyncratic
- Pharmacokinetics
- Receptors
- Side effects
- Synergism
- Teratogenic
- Toxic
- What is Pharmacology?
- LO 2.2 • The Drug Cycle
  - Absorption
    - Figure 2-1
    - Critical Thinking exercise
  - Distribution
    - Critical Thinking – 2 exercises
  - Metabolism
    - Critical Thinking exercise
  - Excretion
- LO 2.4 • Issues Affecting the Drug Cycle
  - Virtual Field Trip [TT.2](#)
  - Fast Tip 2.1 The Correct Anesthesia
- LO 2.4 • The Importance of Side Effects
  - Virtual Field Trip
  - Side effects and the body systems
    - Virtual Field Trip
- LO 2.3 • Drug Resource for Information
  - Comprehensive resources
  - A Closer Look: Organization of the Physicians' Desk Reference (PDR)
  - Virtual Field Trip
  - Fast Tip 2.2 Drug Handbook Features [TT.3](#)
  - Critical Thinking exercise
  - Clinically based resources
- Summary
- **Lecture review and homework assignment** (10 minutes)  
Any of the following may be used for review and/or homework:
  - Review:
    - Critical Thinking exercises
    - Virtual Field Trips
    - IG, page 4: Drug Resource Exploration

## Notes

- Homework:
  - Review Chapter 2
  - Online Review Questions
  - Create flashcards using either index cards or a digital device [TT.4](#)
  - Read Chapter 3

### Chapter Review Activities

- Text
  - True or False [22](#)
  - Multiple Choice [22](#)
  - Short Answer Questions [23](#)
  - Application Exercise [23](#)

### A Look Ahead: Chapter 3: Patient Safety in Medication Administration

The basics of safe medication administration:

- identifying the right patient
- using the right medication
- measuring the right dose
- administering the medication at the right time
- using the right route
- documenting the right procedure in the right manner

### Teaching Tips

**TT.1** Before class, write on the chalkboard or interactive board several names of drugs from different categories. Using notebooks or a digital device, ask students to categorize the drugs according to methods learned in Lesson 3. Allow them to use their flashcards and notes. Besides checking comprehension and retention from the previous lesson, this also helps check the quality of study materials.

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**TT.2** This Virtual Field Trip is ideal for group work during Lecture Review. Change the variable (in step 1, for example, replace vitamin A with vitamin C or D) so the results are different for each group. Decide if you'd like to visit groups as they work or allow time for short presentations and class discussion. NOTE: Prep beforehand by checking information on each website.

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Notes

**TT.3** Prepare a PPT slide or write on the classroom board a list of drugs for your student to look up using either the PDR or USP/DI (hard copy or digital). Students should work individually on this exercise. Once this Fast Tip is completed, students should be able to answer the Critical Thinking question that follows based on their recent experience in using the manuals.

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**TT.4** Encourage students to study by using the methods that work best for them. By monitoring classroom work and homework, you'll be able to pinpoint trouble areas and offer guidance on ways to enhance study skills.

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### Notes