1.1: Pharmacology Basics Introduction

Learning Objectives

- Discuss the processes of pharmacokinetics
- Use multiple professional resources including technology to identify pertinent information related to drugs
- Describe the processes of pharmacodynamics
- Consider pharmacodynamic differences across the lifespan
- Differentiate among prescription drugs, over-the-counter drugs, herbals, and dietary supplements

Safe medication administration is a vital component of the nursing role. Each day it is common for nurses to make critical decisions regarding the safety, appropriateness, and effectiveness of the medications administered to their patients. Examples of decisions that a nurse might make during patient care include:

- Is my patient’s heart rate within the correct range to receive this beta-blocker medication?
- Does my patient have adequate renal function prior to administering this dose of antibiotic?
- Is this pain medication effective in controlling my patient's discomfort?

In order to make safe medication administration decisions, the nurse must have a strong understanding of pharmacology. Symptom management, physical recovery, and individual well-being can be strongly connected to the use of medications in a patient’s treatment plan. Before a student nurse reviews a medication order, checks a medication administration record, or removes a medication from a dispensing machine, it is important to have a foundational understanding of how medications work within the human body. Let’s take a deeper look at the science of pharmacokinetics.