Chapter 1

Introduction to Respiratory Care
Pharmacology
Pharmacology and the Study of Drugs

- Drugs
- Pharmacology
- Respiratory care pharmacology
  - Pharmacy
  - Pharmacognosy
  - Pharmacogenetics
  - Therapeutics
  - Toxicology
Naming Drugs

- Chemical name
- Code name
- Generic name
- Official name
- Trade name
Sources of Drug Information

- United States Pharmacopeia-National Formulary
- Physician’s Desk Reference
- Goodman & Gilman’s The Pharmacological Basis of Therapeutics, edition 11
- Basic & Clinical Pharmacology, edition 9
- Drug Facts and Comparisons
Sources of Drugs

- **Animal**
  - Thyroid hormone, insulin, pancreatic dornase

- **Plant**
  - Khellin, atropine, digitalis, reserpine, eucalyptus oil, pine oil, anise

- **Mineral**
  - Copper sulfate, magnesium sulfate, mineral oil
Process of Drug Approval in the United States

- Chemical isolation and identification
- Animal studies
- Investigational New Drug approval
- New Drug Application
- Food and Drug Administration new drug classification system
- Orphan drugs
The Prescription

- **Parts**
  - Patient name, address, and date
  - Rx
  - Inscription
  - Subscription
  - Sig
  - Name of the prescriber

- **Over-the-counter drugs**

- **Generic substitution in prescriptions**
Respiratory Care Pharmacology: An Overview

- Aerosolized agents given by inhalation
  - Five advantages

- Related drug groups in respiratory care
  - Antiinfective agents
  - Neuromuscular blocking agents
  - Central nervous system agents
  - Antiarrhythmic agents
  - Anithypertensive and antianginal agents
  - Anticoagulant and thrombolytic agents
  - Diuretics