Chapter 38

Antitussives, Mucolytics, and Expectorants
Upper Respiratory Infections

The drugs used to treat discomfort associated with an upper respiratory infection (URI) are antitussives, mucolytics, and expectorants.
Coughing

- Forceful expulsion of air from the lungs
- Productive—secretions from lower respiratory tract expelled
- Nonproductive—dry, hacking, with no secretions
- Antitussive—drug that relieves coughing
Antitussives

- Act by depressing the cough center in the medulla or by anesthetizing stretch receptors in the respiratory tract
- Used to relieve a nonproductive cough
- Adverse Reactions—codeine products: respiratory depression, euphoria, sedation, nausea, vomiting
Opioid Antitussives

- Codiene
  - Most effective cough suppressant available
  - Given orally
  - Decreases both frequency and intensity of cough
  - Dose is 1/10th what is needed to relieve pain
  - Rarely recommended for children
  - Antitussive mixtures have low abuse potential
  - May cause respiratory depression
Nonopioid antitussives

- Dextromethorphan
  - Most effective nonopioid
  - Most widely used antitussive
  - Benefits equal to codeine except in the case of acute severe cough.
  - Acts in CNS
  - Does not suppress respiration at therapeutic doses
Nonopioid antitussives

- Diphenhydramine
  - Antihistamine
  - Sedative and anticholinergic properties
  - Antitussive doses produce prominent sedation

- Benzonatate (Tessalon)
  - Analog of tetracaine, a local anesthetic
  - Suppresses cough by decreasing sensitivity of respiratory tract stretch receptors
  - Do not chew
Mucolytics

- Reduce viscosity of respiratory secretions by direct actions on the mucus
- Example—acetylcysteine
- Use—part of treatment of bronchopulmonary diseases
Expectorants

- Increase the production of respiratory secretions, which decreases the viscosity of the mucus
- Used to help raise secretions
- Example—guaifenesin
Mucolytics and Expectorants

May be used in combination with other drugs such as:

- Antihistamines
- Decongestants
- Antitussives
- Some cough medications
Nursing Care

- Monitor airway clearance
- Encourage increased fluid intake
- Hygiene
- Monitor lung sounds