

- With coughing, a major assessment factor is whether the cough is productive of sputum or dry and hacking. If the cough is productive, note the color, odor, viscosity, and amount of sputum. In addition, assess factors that stimulate or relieve cough and the client's ability and willingness to cough effectively.
- Assess fluid intake and hydration status.

Nursing Diagnoses

- Risk for Injury related to cardiac dysrhythmias, hypertension, and other adverse effects of nasal decongestants
- Noncompliance: Overuse of nasal decongestants
- Deficient Knowledge: Appropriate use of single- and multi-ingredient drug formulations

Planning/Goals

The client will:

- Experience relief of symptoms
- Take drugs accurately and safely
- Avoid overuse of decongestants
- Avoid preventable adverse drug effects
- Act to avoid recurrence of symptoms

Interventions

Encourage clients to use measures to prevent or minimize the incidence and severity of symptoms:

- Avoid smoking cigarettes or breathing secondhand smoke, when possible. Cigarette smoke irritates respiratory tract mucosa, and this irritation causes cough, increased secretions, and decreased effectiveness of cilia in cleaning the respiratory tract.
- Avoid or limit exposure to crowds, especially during winter when the incidence of colds and influenza is high.
- Avoid contact with people who have colds or other respiratory infections. This is especially important for clients with chronic lung disease because upper respiratory infections may precipitate acute attacks of asthma or bronchitis.
- Maintain a fluid intake of 2000 to 3000 mL daily unless contraindicated by cardiovascular or renal disease.
- Maintain nutrition, rest, activity, and other general health measures.
- Practice good handwashing techniques.
- Annual vaccination for influenza is recommended for clients who are elderly or have chronic respiratory, cardiovascular, or renal disorders.

Evaluation

- Interview and observe for relief of symptoms.
- Interview and observe for tachycardia, hypertension, drowsiness, and other adverse drug effects.
- Interview and observe for compliance with instructions about drug use.

PRINCIPLES OF THERAPY

Drug Selection and Administration

Choice of drugs and routes of administration are influenced by several client- and drug-related variables. Some guidelines include the following:

1. Single-drug formulations allow flexibility and individualization of dosage, whereas combination products may contain unneeded ingredients and are more expensive. However, many people find combination products more convenient to use.
2. With nasal decongestants, topical preparations (ie, nasal solutions or sprays) are often preferred for short-term use. They are rapidly effective because they come into direct contact with nasal mucosa. If used longer than 7 consecutive days or in excessive amounts, however, these products may produce rebound nasal congestion. Oral drugs are preferred for long-term use (>7 days). For clients with cardiovascular disease, topical nasal decongestants are usually preferred. Oral agents are usually contraindicated because of cardiovascular effects (eg, increased force of myocardial contraction, increased heart rate, increased blood pressure).
3. Antihistamines are clearly useful in allergic conditions (eg, allergic rhinitis; see Chap. 48), but their use to relieve cold symptoms is controversial. First generation antihistamines (eg, chlorpheniramine, diphenhydramine) have anticholinergic effects that may reduce sneezing, rhinorrhea, and cough. Also, their sedative effects may aid sleep. Many multi-ingredient cold remedies contain an antihistamine.
4. Cough associated with the common cold usually stems from postnasal drainage and throat irritation. Most antitussives are given orally as tablets or cough syrups. Syrups serve as vehicles for antitussive drugs and may exert antitussive effects of their own by soothing irritated pharyngeal mucosa. Dextromethorphan is the antitussive drug of choice in most circumstances and is the antitussive ingredient in almost all OTC cough remedies (often designated by DM on the product label). However, as discussed previously, some authorities question the effectiveness of antitussives and do not recommend them for use in children or adults.
5. Ipratropium (Atrovent), an anticholinergic drug, in a 0.06% nasal spray, is Food and Drug Administration (FDA) approved for treatment of rhinorrhea associated with the common cold.
6. Cromolyn, a mast cell stabilizer, used by oral or intranasal inhalation, seems effective in reducing the symptoms and duration of the common cold but it is not FDA approved for this purpose. In one study, it was used every 2 hours for the first 2 days, then 4 times daily. The nasal solution (Nasal crom) is available OTC.
7. For treatment of excessive respiratory tract secretions, mechanical measures (eg, coughing, deep breathing,