Combination cold and flu preparations: getting ready for winter

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Introduction

The common cold is well named, as it is the most frequent acute illness in the industrialised world. A cold is generally a benign, self-limiting viral illness that exhibits a number of symptoms, including a runny nose, congestion, sneezing, a sore throat, a cough, a headache and malaise. These symptoms, while usually not serious, affect day-to-day-life, and prompt patients to purchase over-the-counter medication. Influenza or flu is a more serious illness. Flu symptoms include those of a cold with the addition of fever, muscle aches, fatigue and weakness. Fever may last from two to five days, and normally resolves within 48 hours.

On average, the symptoms of a cold will last for seven to 10 days. Patients suffering from flu may experience symptoms, especially weakness and fatigue, for more than two weeks.

Treatment

Most preschool children will experience a cold five to seven times a year, with the incidence decreasing to two to three times a year in adults. This frequency means that symptoms must be dealt with to prevent loss of school and work time. Unfortunately, there is no “quick fix” for a cold or the flu, so treatment is symptomatic. When a patient requests a “cure” for his or her cold, the symptoms should be reviewed in order to choose a product suited to the particular experience. In addition, age, general health and concurrent medication must be considered when selecting a product.

Table I lists the classes of medications and their uses.

Decongestants

Topical and oral agents, such as pseudoephedrine and phenylephrine, may be used to relieve nasal congestion associated with the common cold. Oral decongestants should be used with caution in patients with high blood pressure, diabetes or thyroid problems. Topical nasal decongestants are useful in controlling nasal congestion, but use must be limited to a maximum of five days, as rebound congestion may occur after 72 hours of use.

Antihistamines

First-generation antihistamines are used in cold preparations for their

Table I. Classes of medications and their uses

<table>
<thead>
<tr>
<th>Class</th>
<th>Symptoms</th>
<th>Therapeutic agent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decongestants</td>
<td>Nasal congestion</td>
<td>Ephedrine, Phenylephrine, Phenylpropanolamine, Pseudoephedrine</td>
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<tr>
<td>Antihistamine</td>
<td>A runny nose, Sneezing, Watery eyes</td>
<td>Chlorpheniramine, Diphenhydramine, Mepyramine, Pheniramine, Phenyltoloxamine, Triprolidine</td>
</tr>
<tr>
<td>Antitussive/analgesic</td>
<td>A cough</td>
<td>Codeine</td>
</tr>
<tr>
<td>Analgesic/antipyretic</td>
<td>A headache, Muscle aches and pains, Fever</td>
<td>Aspirin, Ibuprofen, Paracetamol</td>
</tr>
<tr>
<td>Stimulant</td>
<td>Fatigue</td>
<td>Caffeine</td>
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</tbody>
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mucus-drying effects. A runny nose and sneezing are common, irritating symptoms of a cold. Antihistamines may relieve these symptoms, but side-effects such as sedation and drying of the eyes, nose and mouth, may limit their use. Many patients experience sedation when using these agents, and should be warned to exercise caution when driving or operating machinery. Concomitant use of alcohol or other medicines that cause drowsiness may exacerbate sedation.

**Antitussives**

A cough associated with a cold, may be caused by nasal congestion or postnasal drip. Antitussive therapy is not usually required in the initial stages of illness, but codeine may be included in some preparations as it may also assist in alleviating aches and pains.

**Analgesics and antipyretics**

The most common painkillers used in cold preparations are aspirin, ibuprofen and paracetamol. Inflammation in the nasal passages may be caused by congestion, and anti-inflammatory agents such as ibuprofen are useful. Headaches, muscle aches and pains may be relieved by paracetamol, aspirin or ibuprofen. **Caution:** Aspirin has been linked to Rey’s syndrome when used in children under the age of 16 years.

**Stimulants**

Caffeine may be added to cold preparations to counteract the sedative effects produced by other ingredients, such as antihistamines. Caffeine side-effects include sleeplessness, anxiety and irritability.

**Choice of medication**

Medications used for cold and flu symptoms are intended to decrease symptoms, enabling the patient to continue as usual, while the body’s immune system is activated to defeat the virus. A number of products are available to treat the symptoms of colds and flu, and this allows for choices, depending on the symptoms experienced by an individual.

Products are available in various combinations:

- **Decongestants and antihistamines:** These are used for a stuffy head and a runny nose.
- **Decongestants and analgesics:** These can be taken for a blocked nose or a stuffy head with pain.
- **Antihistamines and analgesics:** These are used for a runny nose, or sneezing with pain.
- **Decongestants and antihistamines and analgesics:** These can be taken for a stuffy head with a runny nose and pain.

When a combination product is selected, any other medication or illness that is being taken or is present, must be considered. For example, patients with blood pressure problems, who are taking antihypertensive medication, should be aware that decongestants may have an effect on blood pressure.

When choosing between two products, it is important to remember that if the active ingredient is different in the products, then the amount of each active ingredient will differ between the products. For example, a product containing 5 mg of phenylephrine should not be considered to be less effective than a product containing 30 mg of pseudoephedrine.

Similarly, the actual dose of active ingredient must be noted. Product A may contain 2 mg of antihistamine and 250 mg of analgesic, while Product B may contain 4 mg of the same antihistamine and 500 mg of the same analgesic. The dose for Product A is two tablets, whereas that of Product B is one tablet, making them of equal strength.

**Conclusion**

Colds and flu cannot be cured with over-the-counter medication, but these illnesses’ symptoms may be alleviated. Combination preparations are available for convenient and effective dosing. Careful product selection can decrease the impact of the illness on a patient.

**Bibliography**

2. Friedman ND. The common cold in adults: diagnosis and clinical features. UpToDate [homepage on the Internet]. c2011