



The Management of Coughs

Catherine Whittaker (B.Pharm)

There is an overwhelming selection of over-the-counter cough products available. Many patients, particularly during the winter months, seek advice and treatments for their coughs.

A cough is an important protective reflex caused when the airway is being irritated or obstructed. The purpose of a cough is to clear the airway so breathing can continue normally.

Coughs are generally classified as either productive or non-productive. Productive coughs are often described as “wet” or “chesty” and produce sputum or phlegm. Non-productive coughs are dry, tickly or irritating and produce no phlegm. Non-productive coughs serve no useful purpose and can prevent sleep. Determining

if a cough is productive or non-productive is an essential step in selecting a cough mixture.

When choosing the most appropriate cough product, each patient should be individually assessed to determine the type and duration of their cough and their current medication and medical history.

The most common cause of coughs presenting in the pharmacy are upper respiratory tract infections, such as a common cold. However, coughs may be a symptom of a more serious underlying condition such as asthma, chronic bronchitis or tuberculosis. It is therefore important to ask key questions so as to assess whether the patient may be treated with an over-the-counter cough preparation or should be referred to the doctor for further evaluation.

Do

- Remember to discuss any concomitant medication and medical conditions – for example asthma, diabetes and hypertension as these conditions may influence the treatment selected.
- Remember that even if sputum is not “brought up” but is felt on the chest, the cough should be treated as productive.
- Ensure an adequate fluid intake, especially water.
- Be aware that many cough preparations may cause drowsiness; this may be beneficial if sleep has been disturbed.

Don't

- Smoke, as this aggravates the airways.
- Suppress a productive cough as coughing helps bring up sputum and clears the airways. Retaining sputum in the lungs can increase the likelihood of infection.
- Use sedating antihistamines for productive coughs as the drying effect may form a stubborn mucous plug.
- Use an expectorant AND a suppressant as they have opposing effects.

Refer to the doctor if

- The cough has lasted two weeks or more.
- Sputum is yellow-, green-, rust-coloured or blood stained.
- There is pain on coughing.
- There is shortness of breath or wheezing.
- A recurrent nocturnal cough is not associated with a common cold (i.e. this is a sign of asthma).
- The cough is a suspected adverse reaction to medication (such as an ACE inhibitor-induced cough).
- The patient presents with possible croup or whooping cough.
- The cough has not responded to treatment.

A word on treatment:

Treatment options for non-productive coughs:

- Cough suppressants, codeine, pholcodine or dextromethorphan suppress the cough centre in the brain. Pholcodine and dextromethorphan have fewer side effects than codeine such as constipation, respiratory depression and dependence. All may cause drowsiness.
- The sedating antihistamine, diphenhydramine is frequently included in cold and cough preparations. It has cough suppression properties and a drying effect on respiratory secretions making it useful for treating coughs caused by a postnasal drip. It may cause drowsiness.
- Demulcents, glycerine or lemon and honey, are soothing as they form a protective coating over the irritated lining of the pharynx. Demulcents can be safely taken by most patients, including children and pregnant women.

Treatment options for productive coughs:

- Expectorants, ammonium salts, guaiphenesin, ipecacuanha and sodium citrate, help stimulate bronchial secretions, leading to increased liquefying of sputum, which is then easier to cough up.
- Mucolytics, acetylcysteine, bromhexine and carbocysteine, reduce sputum viscosity making it easier to cough up.
- Bronchodilators (theophylline and orciprenaline) and decongestants (ephedrine, pseudoephedrine and phenolpropanolamine) relax the bronchial smooth muscles and are useful if the cough is accompanied by a tight chest or nasal congestion. The decongestants may be unsuitable for patients with uncontrolled diabetes, hypertension or heart disease.
- Steam inhalation has a soothing effect and helps liquefy mucous. Menthol or eucalyptus added to the hot water used for steam inhalation may be useful.

References:

1. Blekinsopp A, Paxton P. Symptoms in the Pharmacy – A guide to the management of common illness. 3rd Ed. Blackwell Science, 2000
2. The Merck Manual of Medical Information Home Edition
3. Martindale - The Complete Drug Reference