

An overview of throat lozenges and sprays in the management of pharyngitis at primary care level

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Abstract

Pharyngitis, or sore throat, is most commonly a symptom of pharyngeal inflammation and is a common complaint among children, adolescents and adults. Medicinal lozenges and throat sprays form an essential part of the management of pharyngitis or sore throat at primary care level. The pharmacist should ensure that patients understand how to correctly use the throat spray applicator, and not exceed the recommended dosages of these products. This article provides a brief overview of these products and their use in the management of pharyngitis.

Keywords: medicinal lozenge, pharyngitis, throat sprays

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Introduction

Pharyngitis, or sore throat, is most commonly a symptom of pharyngeal inflammation and is a common complaint among children, adolescents and adults.¹ It refers to a painful sensation and inflammation of the pharynx (back of throat).² Viral infections, such as a common cold or influenza, or a substantial bacterial infection, such as tonsillitis, are possible causes of a sore throat.³ Most sore throats will resolve without treatment because they are often associated with a self-limiting viral upper respiratory tract infection (at least 70% are due to less severe cold and flu virus infections).⁴ Symptomatic relief with throat sprays and lozenges is generally advised for patients with uncomplicated pharyngitis.

Causes of sore throat

Pharyngitis may have a variety of causes that include³⁻⁵:

- Viral infections: The rhinoviruses are the most common viruses associated with pharyngitis. Other viral pathogens include adenoviruses, coronaviruses, and enteroviruses.
- Bacterial infections: Streptococci are the most frequent bacterial triggers of pharyngitis.
- Chronic nasal congestion: This may cause breathing via the mouth, which leads to dryness, irritation and soreness of the throat.
- Overuse of the voice (often in teachers and singers, for example).
- Medication: The side-effects of certain medications can result in significant dryness and soreness of the throat. Examples include antihistamines, diuretics and certain antidepressants.
- Irritants: Environmental factors, such as air pollution, drying of the air by air-conditioners and heaters, inhaled tobacco smoke, chemicals, spicy food, dust and alcohol can all be possible causes of a sore throat.

Symptoms of sore throat

Patients reporting to a primary care facility with a sore throat may also present with a number of the following signs and symptoms^{1,3-4}:

- Localised pain and mucosal oedema (localised swelling)
- Husky or hoarse voice
- Odynophagia (painful swallowing when eating or drinking)
- Dysphagia (having difficulty swallowing)
- Dryness of the throat
- A scratchy or irritated sensation at the back of the throat
- Loss of appetite
- Enlarged and tender localised lymph nodes
- Red and swollen tonsils (if applicable)

Management of sore throat

The availability of effective symptomatic relief is critical in the management of sore throat and avoids the unnecessary use of antibiotics. Antibiotics are frequently considered inappropriate for sore throat and do not provide relief from painful symptoms. According to the Primary Health Care Standard Treatment Guidelines antibiotics may only be used in patients who are at risk of rheumatic fever (3–21 years of age).⁶ Topical therapy with medicinal lozenges and sprays is associated with a reduced risk of adverse effects when compared to systemic medication. Direct application to the area of inflammation provides rapid pain relief.¹

It is important to maintain adequate hydration and avoid irritants. In children under the age of six the use of breastmilk, warm water or weak tea that contains sugar, honey and lemon helps in the soothing of the throat and alleviation of symptoms.⁶

Lozenges

Lozenges are flavoured, medicated oral dosage forms intended to be sucked, and subsequently deposit active ingredients in the mouth and pharynx for lubrication and the relief of pain.⁷ The moisturising effect of sucking the lozenge is responsible for their effectiveness in the treatment of dryness when compared to sprays.⁹ Lozenges contain analgesics or anaesthetics, for example benzocaine, benzydamine, menthol and flurbiprofen. These active ingredients provide pain relief. Lozenges also contain disinfectants such as amylmetacresol, cetylpyridinium, phenol, dichlorobenzyl alcohol and chlorhexidine gluconate, which are antibacterial and prevent the likelihood of further infection.³ An overview of the medicinal lozenges that are available in South Africa is provided in Table I.

The advantages of medicinal lozenges include^{3,7,9,10}:

- Lozenges have slower rates of clearance and therefore a sustained effect.
- Avoid first-pass metabolism and therefore have increased bioavailability, if required.
- Better patient compliance in patients with difficulty swallowing.
- Pleasant taste.
- Do not require water intake for administration.
- Easy to administer.
- Rapid onset of action.

- Easily accessed as an over-the-counter, or even an open shop (depending on the active ingredient) solution.

The potential disadvantages include the following^{3,7,11}:

- They constitute a choking hazard in young children and are therefore not recommended for use in children under the age of 3–4 years old.
- Easy to overdose if not used as recommended.
- Accidental swallowing may cause some gastrointestinal side-effects.
- Non-ubiquitous distribution of drug with saliva for local therapy.
- Possible draining of drug into the stomach.

Throat sprays

Medicinal throat sprays are effective in coating the posterior pharynx for the relief of pain and associated symptoms.⁸ They also contain local anaesthetic agents and disinfectants. An overview of the throat sprays that are available on the local market is provided in Table II.

The advantages of throat sprays include⁸:

- The soft mist that is dispersed from the throat spray applicator easily reaches inflamed tissue at the back of the throat to provide quick relief of symptoms.
- Easily accessible.
- Easy to administer.

Table I. Examples of medicinal lozenges on the local market¹²

Name	Active ingredients	Instructions
Andolex[®]	Benzydamine HCl	Suck 1 loz slowly in mouth every 1–2 hours
Andolex C[®]	Benzydamine HCl Cetylpyridinium Cl	Suck 1 loz slowly in mouth every 1–2 hours
Cepacol[®]	Cetylpyridinium Cl Benzyl alcohol	Dissolve 1 loz without chewing every 2 hours
Endcol[®]	Cetylpyridinium Cl Benzocaine	Suck 1 loz slowly in mouth every 3 hours
Goldex Throat Lollies[®]	Cetylpyridinium Cl	Suck 1 lolly 3 hourly
Medi-keel A[®]	Cetylpyridinium Cl Benzocaine	Suck 1 loz slowly in mouth every 3 hours
Strepsils[®]	Dichlorobenzyl alcohol Amymetacresol Menthol	Suck 1 loz slowly in mouth every 2–3 hours
Strepsils Plus[®]	Dichlorobenzyl alcohol Amylmetacresol Lignocaine HCl	Suck 1 loz slowly in mouth every 2–3 hours
Strepsils Intensive[®]	Flurbiprofen	Suck 1 loz slowly in mouth every 3–6 hours

Table II. Examples of throat sprays available in South Africa¹²

Name	Active ingredients	Instructions
Andolex[®]	Benzydamine HCl	5–10 sprays at the back of the throat every 3 hours
Andolex C[®]	Benzydamine HCl Chlorhexidine gluconate	5–10 sprays at the back of the throat every 3 hours
Medi-keel A[®]	Phenol	5–10 sprays at the back of the throat every 2 hours
Orochlor[®]	Benzocaine Chlorhexidine gluconate	4–8 sprays at the back of the throat every 4 hours
Throflam[®]	Benzydamine HCl	5–10 sprays at the back of the throat every 3 hours
Throflam-Co[®]	Benzydamine HCl	5–10 sprays at the back of the throat every 3 hours

Disadvantages of using throat sprays may include the following⁸:

- These products are typically not recommended for use in children under the age of six years.
- Incorrect use may result in a lack of effectiveness and therefore poor compliance. The applicator should be used according to manufacturer's directions to ensure the effectiveness of the therapy.
- Application is more complicated than simply sucking a throat lozenge.

Conclusion

Medicinal lozenges and sprays are throat remedies intended for local symptomatic relief of pharyngitis. Most of the preparations are easily accessible and available as over-the-counter, or even open shop preparations. The pharmacist should ensure that patients understand how to correctly use the throat spray applicator, and not exceed the recommended dosages of these products.

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