Mouthwashes and gargles

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Introduction

A variety of mouthwashes and gargles are commercially available. Although cosmetic mouthwashes may have the ability to temporarily control or reduce bad breath, and leave the mouth with a pleasant taste, they don’t kill the bacteria causing the bad breath. Neither do they help reduce plaque, gingivitis, cavities or chemically inactivate odour-causing compounds.

Therapeutic mouthwashes may be used as part of an oral treatment regime, i.e. to treat infection, prevent or reduce gingivitis (an early stage of gum disease), reduce inflammation, relieve pain, reduce halitosis and freshen the breath, or to deliver fluoride locally for caries prevention. These mouthwashes can also be used to help reduce plaque, decrease the speed with which tartar forms on the teeth and to control tooth decay.

Treating patients with mouth or throat conditions

It is important to be familiar with the efficacy and potential side-effects of a mouthwash product before recommending it. In addition, the following patient factors should be considered:

- The patient’s ability: The patient’s ability to perform good oral hygiene practices, i.e. tooth brushing and dental flossing
- The patient’s age: Young children are not able to gargle properly. Therefore, gargles should not be recommended in children aged 12 years and younger

- Condition of the teeth: The condition of the teeth, gingivae and oral mucosa
- Risk: The risk of oral disease.

If there are many lesions or sores in the mouth, if the mouth and throat condition does not respond to the topical treatment, or when the gums are inflamed or bleed easily, it is best to refer the patient to a doctor or dentist.

Therapeutic mouthwashes

Therapeutic mouthwashes may contain a single ingredient or a combination thereof. The following are examples of therapeutic mouthwashes.

Antibacterial mouthwashes

Antiseptics, e.g. chlorhexidine, cetylpyridinium, phenol, thymol, hexetidine and benzyl alcohol, are included in mouthwashes and gargles to help inhibit the formation of plaque on the teeth and bacterial activity in dental plaque. In addition, they may relieve minor throat infection symptoms and reduce the bacterial count in the mouth. Chlorhexidine may interact with fluoride and sodium lauryl sulphate, an ingredient in toothpaste. Therefore, it should be used after rinsing with water, or 0.5-2 hours after using toothpaste. Reversible brown staining of the teeth may occur with the long-term use of chlorhexidine-containing products.

Povidone iodine mouthwashes

Povidone iodine has a broad spectrum of activity against bacteria, fungi, protozoa and viruses. It also reduces plaque and gingivitis. Such mouthwashes can be used to treat minor mouth and throat infections, and may be utilised after oral surgery to prevent infection. However, they should not be used for longer than 14 days because iodine may be absorbed systemically if used on a long-term basis.
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**Analgesic and anti-inflammatory mouthwashes**

Benzydamine hydrochloride, which has anti-inflammatory and analgesic effects, is included in mouthwashes and gargles to relieve painful inflammatory mouth and throat conditions. A topical anaesthetic, such as benzocaine, is included to treat a sore throat and mouth pain.

These ingredients may be combined with antimicrobial substances in a mouthwash or gargle.

**Fluoride mouthwashes**

Fluoride is sometimes added to help prevent or reduce tooth decay and dental caries. It may be recommended to patients at high risk of dental caries including those with dry mouth after radiation and chemotherapy, those who have difficulty with oral hygiene procedures and those undergoing fixed orthodontic treatment. However, it should not be used in children under the age of six years, because they may swallow the mouthwash. They should rather use fluoride supplementation drops e.g. Zymafluor.

**Alcohol-containing mouthwashes**

Alcohol is used as a solvent, preservative and antiseptic in mouthwashes. It has antimicrobial activity against most bacteria, fungi and viruses. The long-term use of alcohol-containing mouthwashes is not recommended.

Mouthwashes containing essential oils such as thymol, eucalyptol, menthol and methyl salicylate (in alcohol) are effective in reducing plaque, gingivitis and halitosis. These mouthwashes are unsuitable in children owing to the risk of accidental ingestion of high doses of alcohol. They may cause irritation and dryness. Therefore, they should not be recommended to patients suffering from a dry mouth or other mouth disorders before they have had the opportunity of first speaking to a doctor or dentist.

**Conclusion**

Tooth decay, gum disease and bad breath can generally be prevented by following a good oral hygiene routine, such as brushing the teeth with a fluoride-containing toothpaste twice a day, brushing the tongue, flossing daily and having regular dental check-ups. Although some mouthwashes may be able to help reduce plaque, gingivitis, cavities and bad breath, using a mouthwash alone should never be the sole means of oral hygiene.

**Bibliography**