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Antimicrobial Mouthrinses in Contemporary Dental Hygiene Practice: The Take Home Message

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Introduction

The primary indication for antimicrobial mouthrinse use is to achieve a reduction in supragingival plaque and gingivitis. Evidence shows that an American Dental Association (ADA)-Accepted antimicrobial mouthrinse can result in a greater reduction in plaque and gingivitis than brushing and flossing alone.¹ Therefore, even the most diligent brusher and flosser can benefit from the addition of an ADA-Accepted antimicrobial mouthrinse to the daily homecare regimen.

Antimicrobial mouthrinses reduce the bacterial count and inhibit the pathogenic bacterial activity in dental biofilm that can cause gingivitis, a precursor to periodontitis. Brushing and flossing alone may not always be enough to control the pathogenicity of dental biofilm. Untreated, gingivitis can advance to periodontitis and tooth loss and may be associated with other chronic diseases and conditions such as diabetes mellitus, cardiovascular disease, obesity, and pre-term birth. Most patients will improve their oral health by adding an ADA-Accepted antimicrobial mouthrinse to their self-care daily regimen of brushing and interdental cleaning. Therefore, the incorporation of an ADA-Accepted mouthrinse into the daily regimen of brushing and cleaning interdentally is important to achieve optimal oral health outcomes.

The ADA Seal of Acceptance Program

More than 100 companies voluntarily participate in the ADA Seal of Acceptance Program and more than 400 oral care products marketed directly to consumers carry the ADA Seal (Figure 1).² Oral health care professionals and consumers can visit http://www.ada.org/ada/seal/adaseal_consumer_shopping.pdf to identify products that have earned the ADA Seal of Acceptance to guide their recommendations and purchases of over-the-counter (OTC) products. Given the importance of oral and systemic health, and product safety and efficacy, this list is likely to expand and should be reviewed regularly.



Figure 1. The American Dental Association Seal of Acceptance. (Courtesy of the American Dental Association.)

The safety and efficacy data for the twice-daily use of an antiplaque and antigingivitis antimicrobial mouthrinse is unequivocal. Products that have been found effective against plaque and gingivitis and that have earned the ADA Seal are those that contain 0.12% chlorhexidine gluconate (CHG) or a fixed combination of essential oils (EO). Listerine® - a fixed combination of EO - and its generic equivalents carry the ADA Seal; however, because of recent changes in the ADA Seal program, prescription products such as Peridex® (0.12% CHG), even if they have previously earned the ADA Seal, are no longer included in the ADA Seal program, as the granting of the ADA Seal for prescription product has been phased out.

Evidence-Based Literature

In addition to the ADA Seal, well prepared, published systematic reviews and meta-analyses that synthesize a large number of rigorous studies on a focused topic and that arrive at clear conclusions can be extremely valuable in guiding clinical decisions regarding products, devices, treatments, and interventions. Many such studies and reviews in addition to original research papers are cited throughout this supplement, and these references can provide further background and information on the benefits of using an antimicrobial mouthrinse as part of a daily regimen.

One good example cited within these pages is a recent meta-analysis of 6-month studies of antiplaque and antigingivitis agents.³ Moreover, systematic reviews on a variety of dental subject areas are also available from the Cochrane Library including the Cochrane Database of Systematic Reviews at www.cochrane.org. This site is an essential resource for busy dental hygienists who strive to maintain an evidence-based practice.

In general, possessing a basic knowledge of what constitutes appropriate research methods and the ability to read the professional literature increases the dental hygienist's competence as a critical consumer of research, enabling the dental hygienist to translate important research findings into practice in a timely manner.

Conclusions

In conclusion, most patients will improve their oral health by adding an ADA-Accepted antimicrobial mouthrinse to their self-care daily regimen of toothbrushing and interdental cleaning. Within the context of clinical practice and current research evidence, dental hygienists should recommend that patients practice a three-step daily oral hygiene regimen of brushing, interdental cleaning, and rinsing with an ADA-Accepted antimicrobial mouthrinse to help prevent and reduce plaque and gingivitis and speak with their dental hygienist or dentist for additional guidance. Understanding the process of change and matching professional oral care recommendations to patient's specific needs, goals, values, and levels of readiness to change may lead to patient adherence and attainment of desired clinical outcomes over the long term. Regardless of the level of adherence to professional recommendations, patients need regular instruction and encouragement from a dental hygienist they trust.

References

1. Sharma N, Charles CH, Lynch MC, et al.. Adjunctive benefit of an essential oil-containing mouthrinse in reducing plaque and gingivitis in patients who brush and floss regularly: a six-month study. *J Am Dent Assoc.* 2004;135: 496-504.
2. About the ADA Seal of Acceptance [homepage on the Internet]. Chicago (IL): American Dental Association; [cited 2007 Jul 30]. Available from: <http://www.ada.org/ada/seal/index.asp>.
3. Gunsolley JC. A meta-analysis of sixmonth studies of antiplaque and antigingivitis agents.. *J Am Dent Assoc.* 2006;137: 1649-1657.