

Report Summary

Comparative Microbial Analysis of Oral Antiseptics

Author: Russell Nisengard, DDS, PhD, Distinguished Teaching Professor, Periodontics and Microbiology, Department of Periodontics and Endodontics, School of Dental Medicine, State University of New York at Buffalo.

STUDY OBJECTIVE:

To evaluate the in vitro antiseptic properties of Sage Antiseptic Oral Rinse, Cepacol mouthwash/gargle and Biotene mouthwash.

TEST DESIGN:

Three antiseptic products were tested in vitro against *Streptococcus mutans* (ATCC #25175), *Actinomyces viscosus* (ATCC #19246) and *Candida albicans* (ATCC #18804). The study was conducted according to the FDA Tentative Final Monograph for Oral Antiseptic Drug Products (Federal Register Vol. 59, No. 27, February 9, 1994, Section 356.90)

RESULTS:

Sage's Antiseptic Oral Rinse and Cepacol mouthwash/gargle passed the testing as defined in the Tentative Final Monograph for Oral Antiseptic Drug Products. Biotene mouthwash did not meet the acceptance criteria as defined in the FDA Tentative Final Monograph for Oral Antiseptic Drug Products.

CONCLUSION:

Both the Sage Antiseptic Oral Rinse and the Cepacol mouthwash/gargle reduced the number of bacteria per ml by at least three log₁₀ while the Biotene mouthwash had little or no effect in microbial reduction.

TABLE 1

Oral Antiseptic	Microorganism	Pass/Fail FDA Criteria	Log ₁₀ Decrease
Sage Antiseptic Oral Rinse	<i>A. viscosus</i>	Pass	7
	<i>C. albicans</i>	Pass	4
	<i>S. mutans</i>	Pass	6
Cepacol mouthwash/gargle	<i>A. viscosus</i>	Pass	7
	<i>C. albicans</i>	Pass	5
	<i>S. mutans</i>	Pass	6
Biotene mouthwash	<i>A. viscosus</i>	Fail	<1
	<i>C. albicans</i>	Fail	<1
	<i>S. mutans</i>	Fail	<1