

## P&G Oral Presentations

Thursday, July 15



### 445 Comparative Anti-Plaque Efficacy of an Isopentane Fluoride Dentifrice

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Isopentane is a common ingredient added to shaving creams and other cosmetics to facilitate foam formation. Commercial fluoridated toothpastes containing isopentane have been developed and literature studies have suggested that these dentifrices may provide some levels of advanced bacterial cleaning through surfactancy. Plaque prevention is critical to therapeutic actions of dentifrices. There are no published clinical data on the antiplaque effects of isopentane containing dentifrices in the literature. **Objectives:** This clinical study was conducted to evaluate the 2 week anti-plaque efficacy of a fluoride dentifrice containing an isopentane/surfactant foam dispersal system, as compared to a standard fluoridated control. **Methods:** This study was a randomized, 2-period crossover design which examined anti-plaque efficacy of two dentifrices: standard fluoridated control (Colgate® Cavity Protection (CCP)) and foaming gel (Aquafresh® iso-active Whitening® (IA)) in 14 subjects. Subjects were randomized to one of two treatment sequences based on screening pre-brush plaque. Overnight plaque was measured after 1 and 2 weeks of use, using an objective Digital Plaque Imaging Analysis (DPIA) Method. There was one week of wash out between treatment periods. Treatment comparisons were analyzed using a general linear mixed model. **Results:** At week 1, the mean overnight plaque level was 17.08% for the isopentane containing toothpaste compared to 16.86% for the standard fluoridated control. At week 2, the mean overnight plaque level was 18.94% for the IA dentifrice compared to 17.85% for the CCP control. The mean difference in overnight plaque between CCP and IA was not significantly different ( $p > 0.42$ ) with 95% confidence intervals of (-2.22, 1.78) at week 1 and (-4.08, 1.89) at week 2. **Conclusion: Clinical evaluation of an isopentane containing foaming dentifrice did not exhibit antiplaque efficacy over regular fluoridated toothpaste after two weeks of use, suggesting limited therapeutic potential.**

Friday, July 16



### 1977 Clinical Comparison of Take-home Whitening Strips and In-office Light-assisted Whitening

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**Objective:** This clinical study evaluated whitening performance of a take home whitening strip regimen and a light-enhanced, in-office tooth whitening procedure. **Methods:** This was a two-treatment, parallel design, examiner-blinded, controlled clinical trial. Forty-four adult volunteers with no history of previous bleaching and a Vita shade of A2 or darker on maxillary anterior teeth were randomized to one of two treatment groups. Professional treatment involved light-assisted application of a 25% hydrogen peroxide gel (Discus Dental® Zoom!™ Advanced Power Chairside Whitening System) following manufacturer's recommendations. Take-home whitening regimen involved daily 30-minute applications of 9.5% hydrogen peroxide high-adhesion whitening strips (Crest® Whitestrips® Advanced Seal) for 20 days. Efficacy was measured objectively as  $L^*a^*b^*$  color change using digital images at Baseline and Day 21 (20 days post chairside treatment). **Results:** Mean age was 38 ranging from 18-61, 62% of subjects were female. Treatments were balanced on baseline demographics and tooth color. At Day 21, both groups demonstrated significant ( $p < 0.001$ ) improvement in  $b^*$ (yellowness) and  $L^*$ (lightness) color parameters relative to Baseline. After adjusting for baseline and age, Day 21  $\Delta b^*$  means (SE) were -1.81 (0.14) for the strip group and -1.76(0.20) for the light+gel group, not differing significantly ( $p = 0.82$ ). Day 21 adjusted  $\Delta L^*$  means (SE) were 1.72 (0.10) for the strip group and 1.17 (0.15) for the light+gel group, significantly ( $p = 0.005$ ) favoring the strip group. Both treatments were well-tolerated. **Conclusion: Use of a take home whitening strip regimen resulted in similar tooth yellowness reduction and greater lightness improvement as that of a professional chairside light-assisted whitening procedure.**