

Poster Presentation - Research Supported by P&G

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831 Shade Change of Whitening Strips and Light-assisted Whitening in Practice

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Objectives: The objective of this clinical trial was to compare shade change with an in-office, light-aided whitening treatment and a marketed whitening strip within a dental practice. **Methods:** This was a randomized, parallel, examiner-blinded clinical trial conducted within a dental practice. A total of 28 healthy adults with no history of prior tooth bleaching and no tooth sensitivity were randomized to 9.5% hydrogen peroxide high adhesion whitening strips (take-home strip group) worn 30 min, once a day for 14 days or an in-office chairside light-activated whitening procedure (chairside light+gel group) used in a single day according to manufacturer's instructions. In this practice-based research, tooth color was assessed at Baseline and Day 15 using a value-oriented, 16-step shade guide, while safety was assessed via clinical examination and interview. **Results:** Subjects ranged in age from 20 to 62 with an average age of 40 years, and 50% of subjects were female. Groups were balanced ($p > 0.70$) at Baseline for demographics and Baseline shade score. Baseline shade scores were 7.06 and 6.83 for the take-home strip and the chairside gel+light groups, respectively. At Day 15, the take-home strip group exhibited 3.24 unit adjusted mean shade reduction from Baseline, while the corresponding adjusted mean for the chairside light+gel group was 3.14. The two groups did not differ significantly ($p = 0.79$), with 95% confidence bounds within ± 1 shade. Both products were well tolerated with tooth sensitivity and oral irritation being most common adverse events. No subject discontinued treatment due to an adverse event. **Conclusion: Shade change with a 9.5% hydrogen peroxide strip was comparable to that of an in-office chairside light activated whitening procedure in a dental practice.**

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833 Short-Term Whitening Efficacy of Marketed High-Adhesion Whitening Strip

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Objectives: This randomized, parallel-design, examiner-blinded clinical research was conducted to evaluate the short-term clinical response of 9.5% hydrogen peroxide high-adhesion whitening strips under two usage regimens. **Methods:** Sixty healthy adult volunteers with no history of previous tooth whitening and no existing tooth sensitivity were randomized to one of the two treatments: 9.5% hydrogen peroxide whitening strips used 30 min, 1/day for 2 days and 9.5% hydrogen peroxide whitening strips used 30 min, 2/day for 2 days. Efficacy was measured objectively as $L^*a^*b^*$ color change from digital images, safety was assessed via oral exams and subject interviews at Baseline, Day 2 and Day 3. **Results:** Subjects ranged from 18 to 44 years (mean age of 23), and 70% of subjects were female. At each visit, both treatment groups demonstrated significant ($p < 0.0001$) tooth color improvement for yellowness (Δb^*) and lightness (ΔL^*) relative to Baseline. At each study visit, the 2/day strip regimen resulted in significantly ($p < 0.02$) greater improvement of Δb^* and ΔL^* color parameters relative to a 1/day strip regimen with Day 2 adjusted Δb^* means of -0.66 for the 1/day regimen and -1.37 for the 2/day regimen and Day 3 adjusted Δb^* means of -1.22 for the 1/day regimen and -1.89 for the 2/day regimen. Day 2 adjusted ΔL^* means were 0.88 and 1.26 for the 1/day and the 2/day regimen, respectively, and Day 3 adjusted ΔL^* means were 1.18 and 1.72 for the 1/day and the 2/day regimen, respectively. Tooth sensitivity was reported by 7% of subjects in each group, no oral irritation was reported and no subject discontinued treatment due to an AE. **Conclusion: Both 1/day and 2/day regimens of 9.5% hydrogen peroxide high adhesion whitening strips result in significant tooth color improvement as early as after one day of product use.**