1290 Efficacy of Crest Whitestrips Relative to Other Marketed Bleaching Systems

E.J. SWIFT, Jr., H.O. HEYMANN, A.D. WILDER, Jr., W.R.L. DIAS, and P.A. MIGUEZ, University of North Carolina, Chapel Hill, USA

At-home tooth bleaching, first published in 1989 by Haywood and Heymann, usually involves the use of a custom-fitted soft plastic tray to deliver a carbamide peroxide or hydrogen peroxide gel. However, a new delivery system has been introduced (Crest Whitestrips, CWS). CWS contains a measured dose of 6.0% hydrogen peroxide on a polyethylene strip. Objectives: The purpose of this study was to compare the safety and efficacy of the new system versus two tray-applied bleaching systems, Opalescence 10% and Opalescence F 20%. Methods: Seventy-one adult patients with teeth darker than A3 on a value-oriented Vita shade guide were enrolled in the study, and were stratified and randomly assigned to 3 treatment groups. Subjects in the CWS group applied strips to the maxillary anterior teeth for 30 minutes twice a day for 14 days, and subjects in the Opalescence groups applied the material in custom trays overnight for 14 days. Subjects were withdrawn from treatment when tooth shade reached B1, the lightest Vita shade. Efficacy was evaluated by measuring Vita shades after 14 days of treatment, and at 3 and 6 months later. Data were subjected to analysis of covariance. Results: All three treatments resulted in significant shade improvement from baseline (p<0.0001). Immediately following treatment, Opalescence F 20% provided significantly greater whitening than the other two products. However, this difference did not persist over time. At the 6-month evaluation, mean shade changes from baseline were 5.1, 6.1, and 5.8 units for Crest Whitestrips, Opalescence 10%, and Opalescence F 20%, respectively. These differences were not statistically significant (p>0.05). Conclusions: The results of this study indicate that Crest Whitestrips provide a similar tooth whitening effect as two tray-applied carbamide peroxide bleaching agents, as measured by Vita shade changes. Supported by Procter & Gamble. ed_swift@dentistry.unc.edu

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Back to the Dental Materials: IV - Clinical Trials Program
Back to the 32nd Annual Meeting and Exhibition of the AADR (March 12-15, 2003)