We partner with Dental Professionals to provide oral health solutions to patients that are demonstrated as safe and effective, through rigorous examination in clinical trials and published in peer-reviewed journals. The five articles contained in the Special Issue of the Journal of Clinical Dentistry underscore these important points, providing Dental Professionals a transparent look into the clinical data that forms the basis of a suite of safety and efficacy evidence. Taking a high-level view, the five articles focus on the effect of Philips products on surface plaque removal, gingival bleeding and inflammation. We have long known that the plaque coating teeth surfaces is its own, dynamic microenvironment, where there exists a spectrum of bacterial species and their byproducts that are health or disease-associated. And we know that the character of these biofilms can affect whether the adjacent tooth tissue, the gingiva, is healthy. As such, the clinical trials reported in the Special Issue focus on these important clinical endpoints.

**Key facts**

In the first manuscript, which reports a randomized, parallel-design clinical trial, the Philips Sonicare DiamondClean powered toothbrush was observed to be statistically significantly superior to use of a manual toothbrush, within 2 weeks of use, persisting to study conclusion at 4 weeks, in reducing surface plaque, gingivitis and gingival bleeding. (Study 1)

Similar outcomes were also observed in a clinical trial comparison between the Philips Sonicare FlexCare Platinum with Premium Plaque Control brush head, and a manual toothbrush, following 2 and 6 weeks of use. For example, by the Week 2 visit following use of the assigned product, the mean percent reduction from baseline in the assessment of gingival bleeding was 47.9% for the Sonicare group, and 8.6% for the manual toothbrush group. (Study 2)

The third manuscript reports on a meta-analysis that was initiated to determine whether these discrete observations of differences in plaque and gingivitis reduction between sonic powered and manual toothbrushes, were supported in a broad literature. The study authors queried multiple publicly accessible databases for clinical trial outcomes using a pre-defined set of keywords. Thereafter, they performed a comprehensive analysis of the results. The paper, which includes data from 18 studies, also concludes that use of a high-frequency, high-amplitude sonic-powered toothbrush is superior to manual toothbrushing for reducing plaque and gingivitis. (Study 3)

The fourth manuscript reports on a comparison between two powered toothbrushes, the Philips Sonicare DiamondClean with Premium Plaque Control brush head, and the Oral-B 7000 with CrossAction brush head. The outcomes of this large clinical trial demonstrated that the sonic powered toothbrush performed significantly better than that Oral-B power toothbrush in reducing surface plaque, gingivitis and gingival bleeding, following 2 and 6 weeks of use when used in a respective daily clean mode. In addition, the study analysis also included an insightful proportion analysis, where the percent of subjects who achieved at least a 20% reduction in gingivitis at Week 2 and Week 6, was significantly better in the Sonicare than the Oral-B group. (Study 4)

The final manuscript provides important clinical evidence demonstrating the efficacy of the Airfloss Pro interproximal cleaning device. The device was developed with the "non-food" in mind, that patient who just can’t seem to adopt a flossing regime, but who really needs better interproximal oral hygiene. As such, the study was designed to show that manual toothbrushing followed by once-daily interproximal cleaning with Sonicare Airfloss Pro used with antimicrobial rinse, was at least as good as manual toothbrushing followed by once-daily string floss use, in reducing plaque and gingivitis. The study outcomes demonstrate that this is, indeed, the case at both the Week 2 and Week 4 timepoint. (Study 5)

With each innovation at Philips Oral Healthcare, our collective efforts have a single overriding goal to provide your patients the very best tools to optimize their oral health. Subjecting our products to rigorous evaluation in a clinical trial setting is the key to study conclusion at 4 weeks, in reducing surface plaque, gingivitis and gingival bleeding. (Study 3)

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