Objectives: The objective of this study was to determine if a commercial CPC (cetylpyridinium chloride) mouthrinse containing 0.07% CPC (Crest Pro-Health Rinse) could provide “overnight” (i.e., 7 pm to 7 am) and “daytime” (i.e., 7 am to 7 pm) breath protection, as determined by measurement of intra-oral VSC levels, when used as an adjunct to tooth brushing alone.

Methods: This was a single-center, examiner-blind, randomized, 2-treatment, 6 day, 2-period, cross-over study involving 34 known malodorous subjects. Intra-oral VSC (volatile sulfide compounds) levels were assessed by means of a portable sulfide meter (Halimeter, Interscan Corp). There was a 1 week washout between periods. On the evening of Day 1, Period 1, subjects were assessed for breath status (baseline) and randomly assigned to one of the two test regimens (brushing with Colgate...dentifrice for 1 min. or brushing followed by rinsing with the commercial mouthrinse (20 ml for 30 sec.)). They used their assigned treatment regimen that evening and the following 4 days, twice per day, unsupervised. On the morning of Day 6 subjects returned to the clinic and were measured for breath status. This measurement was taken 12 hr after their evening treatment and represents the “overnight” time point. Afterwards, subjects treated themselves and returned to the clinic 12 hours later for an evening or “daytime” breath measurement. Period 2 was conducted in a similar fashion.

Results: Analysis shows that the use of a commercial CPC mouthrinse following brushing provides significant ($p < 0.001$, one tail test) reductions in intra-oral VSC levels at both the “overnight” and “daytime” time points versus brushing alone. The reductions in VSC levels were 35 and 33%, respectively.

Conclusion: This study demonstrated that a commercial CPC mouthrinse containing 0.07% CPC can significantly improve morning and evening breath status up to 12 hours versus brushing alone, even after eating and drinking.