Reviewer's report

Title: A randomized, double blind, crossover, placebo-controlled clinical trial to assess the effects of a mouthwash containing chlorine dioxide on oral malodor

Version: 5 Date: 13 May 2008

Reviewer: Silvia Roldán

Reviewer's report:

The reviewed paper presents the results of a cross-over study that has evaluated the effect of a test product versus a placebo in halitosis-related variables.

In this reviewer opinion, the content of the reviewed paper is mainly correct and provides some interesting information (especially with regards to the selected outcome variables), however it also has some important limitations, and therefore, a major revision of the manuscript is recommended.

1.- Review English grammar and vocabulary.

2.- Introduction: the introduction should be improved, scarce information is cited, especially about another products/mouthwashes for the treatment of oral halitosis. It gives the impression that the active product that has been evaluated in the paper is the only treatment available for oral halitosis.

3.- A clear description of hypothesis and justification is lacked in the paper.

4.-Material and methods:
- The study included only male volunteers, is there any rationale for that?
- Was the wash-out period calculated based on the carry-over effect? In other words, the authors should statistically analyse their results taking into account the order of use of the products.
- The inclusion of a positive control would have been desirable in a crossover study.
- The authors should clearly state that this is not a real clinical trial, but it is more a study model, similar to the model used to assess antiseptics and the reduction in salivary bacterial counts. In addition, the limitation of the follow-up should be pointed out, since oral halitosis is a chronic condition.

5.-Conclusion: they are not supported by the results: the impact on morning breath was not truly assessed. Again, limitations of the study model should be acknowledged at this point.

Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests