Reviewer's report

Title: A systematic review of methods to diagnose oral dryness.

Version: 2 Date: 16 February 2012

Reviewer: Lars Eliasson

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A systematic review of methods to diagnose oral dryness

Major Compulsory Revisions

1. This seems to be a mainly well written and structured review about an intricate subject. The intricacy is immediately accentuated by the title. How should dry mouth be defined? Is it reduced salivation, is it the subjective feeling of xerostomia, or is it when both coincide? The problem is commented on in different parts of the article, but a more focused discussion about this would, in my view, improve the paper. This literature review does, however, contribute to saliva research with its emphasis on the opinion that there is a need for global consensus regarding the terminology and effective diagnostic criteria for xerostomia and reduced salivation.

2. There is very little in the BACKGROUND section about the multitude of different interview protocols used for diagnose of subjective feelings of xerostomia. Can it be argued if these could be used as discriminating diagnostic tools?

3. The structure of the paper is sometimes a little mixed up: e. g. sialometry and its cut-off values appear in the BACKGROUND section, while Oral Shirmer’s test and its detail is in the RESULTS, Secretion tests section.

4. The section: Secretion/Glandular morphology. This seems to relate to diagnostic procedures for Sjögren’s syndrome rather than general dry mouth.

5. Table 1. Why are studies on the effect of radiation therapy excluded, but not studies on the effect of Sjögren’s syndrome? This needs explanation. What do you mean by SECONDARY OUTCOME VARIABLE? Is it when xerostomia or reduced salivation is secondary to a generalized illness (e. g. SS, or other autoimmune disease) or treatment (e. g. radiation, medication)? Or is it when they are secondary findings in studies aimed at something else?

6. There is quite a lot of focus on the diagnosing of Sjögren's syndrome in the
paper, although the title indicates a focus on oral dryness in general.

7. Table 6. Sialometry or sialochemistry of whole or glandular salivas as reference for what? Subjective xerostomia or Sjögren’s syndrome, or....?

Minor Essential Revisions


12. There are some errors with spacing, irregularities with page numberings, #28: Jacobsson in the reference list.

13. Fig. 2. Is this a summary of the quality assessment found in this study? Maybe a better description in the RESULTS section could help a reader to easier comprehend the figure.

Discretionary Revisions

14. Table 7. Is this table really necessary to publish in this paper? All these criteria are well known, they are published before, and the papers they originate from are properly referred to.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

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