Author’s response to reviews

Title: Caries risk assessment in school children using a reduced Cariogram model without saliva tests

Authors:

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Author’s response to reviews:

Dear Editor, BMC Oral Health

Amendments made to article now titled “Caries risk assessment in school children using a reduced Cariogram model without saliva tests”.

The authors thank both reviewers for their helpful and valuable comments. The authors have made the following amendments which we hope have addressed the issues raised to the reviewers’ satisfaction.

Please see below a point by point response to all the comments.

Reviewer 1

# The reviewer suggests including the variables that were eliminated from the model in the title.

The authors propose to amend the title to: ‘Caries risk assessment in school
children using a reduced Cariogram model without saliva tests’, as the title will be too long by adding all the saliva test parameters.

# The reviewer thinks that the conclusion is not in line with the aim and the results, since the null hypothesis was rejected and the mutans streptococci counts had the greatest impact on the predictive ability.

Authors response: The conclusion is now changed in line with the aim and the results.

Reviewer 2

# The reviewer wishes further explanation about standardization of examiners.

Authors response: We have provided more information about the examiners and added the following sentences: The samplings and the clinical inspections were carried out by a specially trained nurse and the records and radiographs were scored by two calibrated, experienced dentists and all examinations were blinded. The children were reassessed with the same criteria after 2 years. The regular dental team and the patient were not informed on the risk status during the study.

# The reviewer suggests that a discussion about using mutans test in very young children should be added to the Discussion.

Authors response: The following text is added to the Discussion: In a systematic review from the Swedish Council on Technology Assessment in Health Care [2] it was concluded that the presence of mutans streptococci as a sole predictor for caries development in toddlers during the following 2–3 years had low accuracy. On the other hand, there are a number of studies showing that presence of mutans streptococci, both in plaque or saliva of young caries-free children, appears to be associated with a considerable increase in caries risk [12, 13].

# The reviewer thinks Table 1 is confusing and wonder how it was derived and what it means.

Authors response: The information in table 1 is derived from reference number 7 in order to illustrate the true 2-yr caries development in relation to baseline risk assessment in the two models. The following text is added to the heading of table 1: The table is derived from [7].

# The reviewer suggests: perhaps there should be an explanation of the clinical effect of tests with low values of sensitivity and specificity.

Authors response: When considering a test for risk assessment purposes it’s important to be familiar with the clinical use of the test and consider if and how it will contribute to the prediction. Tests with low sensitivity and specificity are not very useful for clinical purposes.
# The reviewer asks: is there any value to Figure 1 since the values are so close together?

Authors response: We believe there is a value keeping figure 1 since the ROC-curve visualizes the impact of the various saliva parameters to the readers.

Suggestions by the Editor:
# Please also document in the manuscript concerning informed consent.
Addressed – page 4. It is now documented in the manuscript that the schoolchildren volunteered after informed consent given by the parents.

# We have processed the manuscript with a US spell and grammar check to improve the style and eliminate mistakes.

One of the authors has a new email address (stwe@sund.ku.dk), now changed in the manuscript.

With the amendments made, we hope that the manuscript can be accepted for publication in BMC Oral Health.

Yours sincerely,

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