Reviewer’s report

Title: An Estimate of Pocket Closure and Avoided Needs for Surgery After Scaling and Root Planing With Systemic Antibiotics. A Systematic Review.

Version: 2 
Date: 6 August 2014

Reviewer: Stefan-Ioan Assis. Professor Dr. Dr. Stratul

Reviewer’s report:

Major compulsory revisions

Page 4, line 12: please consider the inner buccal mucosa and its recesses (Fish & Eisenring) as reservoirs of pathogens.

Page 5, line 4: You are right when relating residual PPD>3mm to an enhanced risk for bacterial re-growth. However, bacterial re-growth does not always mean progression of the disease, which is measured rather by the loss of attachment, bleeding etc. Don’t you think CAL would have been a more suitable parameter for the decision surgery/avoidance of surgery?

Page 5, line 8: please consider mentioning the CPITN/PSR index with its cut-off values for surgical referral, which are widely used in general practice in establishing the indications for periodontal surgery.

Page 7, line 9: please explain why smokers were not specifically excluded, as smoking is an important risk factor for the progression of the periodontal disease.

Page 8, line 25-26: are you sure that bringing together studies on chronic periodontitis with studies on aggressive periodontitis does not influence the heterogeneity of the systematic review, as it is not clear for which diagnosis the additional use of antibiotica is more beneficial in terms of clinical improvements?

Page 12, lines 2-4: the meaning of the phrases is not clear enough to me. Please reformulate, more clearly.

Page 13, line 17: should the last sentence/conclusion be perhaps regarded as a statistical pitfall? The statistical interpretation and the results are well explained (page 11), however, given the extremely important implications of the study for the daily practice (surgery vs. avoidance of surgery), and given your own finding of single trials which report residual pockets > 5mm (with subsequent clear indication for surgical pocket reduction), don’t you think the last conclusion is somewhat misleading (especially when correlating with the first conclusion)?

Minor essential revisions

Page 2, line 4: please insert “o” in “antibiotic”.

Page 3, line 23: please insert (probably) “and” between “microbial challenge” and
“successful prevention”.

Page 5, line 10: please consider replacing “different” with “various”.

Page 9, line 9: please consider replacing “gargle solutions” with “mouthwashes”.

Page 11, line 9: please remove one of “the” in the beginning of the line.

Page 12, line 14: please remove “an”

Discretionary revisions

Page 8, line 5: please provide a few more words on the statistic software R.

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

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.