Reviewer's report

Title: Extrinsic tooth staining potential of high dose and sustained release iron syrups on primary teeth

Version: 3
Date: 23 December 2014

Reviewer: Juliano Pessan

Reviewer's report:

The paper covers an interesting topic related to pediatric oral health. However, there are some issues that should be addressed before a final decision can be made:

Major compulsory revisions:

1. Specimens preparation: There appears to be a lack of standardization of the primary teeth used in the study (i.e. polishing of the surface, microhardness, etc), which potentially may lead to imbalance in the groups regarding their baseline properties (hardness, roughness, etc), which certainly play a role in the penetration of substances into enamel. This needs to be clarified.

2. Study protocol: The protocol used does not seem to mimic in vivo conditions, due to the excessive time of immersion of teeth in the solutions, which does not happen in the clinical situation. In this sense, it should be noted that the administration of iron occurs in a few seconds per day, which are then alternated with toothbrushing episodes, contact of teeth with potentially astringent foods, acidic beverages, etc, which are likely to remove the outermost stains from the teeth. Therefore, this reviewer believes that the implications of the protocol for clinicians is very limited.

3. Study protocol: Was the analysis of the teeth blinded?

4. Results: Table 2 is presented in a confusing manner, which makes its interpretation too difficult. It should be rewritten in a more accessible style.

Minor essential revisions:

1. Overall: the text should be carefully revised in order to avoid wrong usage of semicolons (i.e. p3, l13), excessive space before colons (i.e. p3, l17); lack of space between the text and the reference number (i.e. p4, l2); lack of space between the number and its unit of measure (i.e. p5, l16); lack of space between the text and parenthesis (i.e. p5, l23);

2. Results (p.6, l13): The information on the statistical methods used should be removed, as it already appears in M&M

3. Results (p.6, l15): The expression "as expected" should be deleted, as it implies that the authors already anticipated the results, which could imply lack of
exemption.

4. Discussion (p.7, l.12): The word "prevalane" should be replaced by "prevalence"

5. Discussion (p.7, l.15-17). The entire sentence should be deleted, as the aim of the study was already stated in the end of introduction.

6. Discussion (p8, l18). The word "study" appears twice.

Level of interest: An article of limited interest

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