Reviewer's report

Title: Assessing the antibiotic potential of essential oils against Haemophilus ducreyi

Version: 1 Date: 13 March 2014

Reviewer: Sandy van Vuuren

Reviewer's report:

Date of completion of review 13/03/2014

The authors report on the antimicrobial activity of a selection of essential oils against Haemophilus ducreyi, a topic that has been neglected in research. Thus, the work presented here makes an interesting and valid addition to furthering the knowledge of the antimicrobial properties of essential oils. The paper is well written and the research question well defined. The title and abstract accurately convey what has been found. There are some reconsiderations that need to be adhered to before acceptance. They are as follows;

Major Compulsory Revisions

Disc diffusion studies

The disc diffusion assay is used as a screening to identify essential oils with potentially good activity. If so, why was lemongrass and Oregano not included in the MIC assays as both these oils showed good activity in the disc diffusion assay?

The antimicrobial data for the disc diffusion assay should be excluded completely. Only the MIC dilution methodology should be considered. There are numerous publications that document problems and inconsistencies associated with disc diffusion methodology when investigating essential oils. Please note some publications attesting to this;


I also quote directly from Kalemba D., Kunicka, “We strongly suggest publishing only the results of research where MIC/MBC values have been established”

The comparative results also attest to these inconsistencies. For the disc diffusion study cinnamon oil is the most effective, yet in the MIC assay, clove is superior. My suggestion is to include all test essential oils in the MIC assay only. The given results for three oils should only be considered as a short communication.

Minor Essential Revisions

Formatting and typographical amendments
A few formatting and typographical corrections need to be considered as follows;
- Join paragraph two and three (page 3)
- The scientific names should be rather used for the essential oils.
- Preferentially do not refer to an essential oil as an extract (first line, page 9)

References
- All references should be cross checked.
- According to journal format, the journal name should be italicized.

Discretionary Revisions

Results
- Further elaboration on data could be given by including the average and standard deviation for all strains. This would give some indication of the overall activity and variation between strains.
- Table 1- foot note ‘d’- An indication of why the study was not done should be given.

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.

Declaration of competing interests:
I have no competing interests