Reviewer's report

Title: In vitro antibacterial activity of some plant essential oils

Version: 2 Date: 31 August 2006

Reviewer: Mark Miller

Reviewer's report:

General
This is a small but reasonably well performed study evaluating 20 essential oils for antibacterial activity. The method is simple (disc diffusion) but well regarded. The data needs some minor adjustments in presentation and minor adjustments in the discussion would add value to the paper. Nevertheless there will be audience that would find this study of value and utility.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
(1) Define “essential oil” versus “oil”. The readership is diverse and this will provide some clarity.
(2) Define why the disc diffusion method was chosen over other methods as far as utility and limitations.
(3) For results Table 3 is open ended and a range is used in the text. The table would be improved if the inclusive range for MIC is described as both a concentration and as a dilution. Table 4 while complex, is more useful but Table 3 with improvements can be effective.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
(1) Results for the vehicle control are not included in Table 4 – although the streptomycin control is. This needs correction.
(2) Description of the quality assurance of the various oils, as with volatility this may effect effectiveness.
(3) Discussion is only one, albeit long, paragraph. This needs to be broken up into appropriate discussion points. Related to this there needs to be a more detailed discussion of suitability for use, including route of administration, dose, etc.
(4) Is the goal truly to find new compounds for pharmaceutical development? I think not, or least it is in contrast to the third sentence of the Background section where the discussion centers on the use of traditional medicine to manage health care in a cost-effective manner in the developing world. What is the focus here? Is it to find new pharmaceuticals or is it health care management, or both? Clarify.

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Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:
I declare that I have no competing interests