Reviewer's report

Title: In vitro antibacterial activity of some plant essential oils

Version: 2 Date: 14 October 2006

Reviewer: Jenny Wilkinson

Reviewer's report:

General
This manuscript describes the in vitro testing for 21 essential oils for antibacterial activity. While the work is reported clearly and the methodology sound the significance of the work is unclear. The antibacterial activity of many of the oils tested in this study has been extensively reported previously and the selection of bacteria is standard for these types of studies. A more convincing case for publication may have been made if the organisms chosen had related to a specific disease or condition, or if the chemical composition of the oils had been correlated with activity.

In addition, the references used in this study are quite dated – 22 of the 31 references were published before 2000, with 7 of the remaining 9 published in 2001 or 2002.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. The abstract states only 20 oils were used whereas the manuscript reports on 21 oils
2. What consideration was given the vapour effects of the oils given that the tests were carried out in sealed dishes?
3. Why was 18 h used as the incubation time? Most studies use 24 h
4. How were the ‘most potent’ oils determined? (MIC assay)
5. Table 2 – this data should be reported as mean and standard deviation and statistical analyses applied to determine which were the ‘best’ antibacterial oils
6. Although the chemical composition of the oils is referred to in the Discussion the authors use literature values rather than composition data for the oils used in the study. It would have been more meaningful if a GC/MS data for the oils used in the study had been presented.
7. The authors should update the references used in this study and relate their finding to more recent studies

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. The accepted botanical name for lavender is Lavandula angustifolia

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 of limited interest

Quality of written English: Needs some language corrections before being published

Statistical review: No

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