Reviewer's report

Title: Insufficient neutralization in testing a chlorhexidine-containing ethanol-based hand rub can result in a false positive efficacy assessment

Version: 2 Date: 23 May 2005

Reviewer: manfred rotter

Reviewer's report:

General

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached) Although the experimental design of this study is not optimal - a Latin square should have been used - the results may still be considered valid because the same subjects have been used throughout the experiments and the same suspension of test organisms served for artificial contamination of the hands on the same day.

What is not in order, however, and could still be altered is the inappropriate application of Wilcoxon's matched-pairs signed-ranks test on the results. For the statistical comparison of the mean Ig RFs an analysis of variance could, for instance, be carried out and, in the case of significant differences, a further analysis by Wilcoxon-Wilcox testing could be undertaken. The authors are requested to follow this statistical proceeding, otherwise the paper should not be published.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Page 6, first para, last phrase: "... TSA with neutralizing agents wERE poured...".
Page 7, first phrase: "...two bottles with 1 l TSB, INCUBATED at...".
Page 8, "Efficacy of hand rubs": Omit "-steps" at log10 (four times).
Page 11, "Competing interests": "The first author is paid employee (omit "s")).
Table 1, body, "Reference alcohol": place "v/v" next to "60%" and remove the legend.

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.