**Reviewer's report**

**Title:** Evaluation of Infectious Diseases and Clinical Microbiology Specialists' Preferences for Hand Hygiene: Analysis Using the Multi-Attribute Utility Theory and the Analytic Hierarchy Process Methods

**Version:** 3  **Date:** 04 Jul 2017

**Reviewer:** Virginia Mumford

**Reviewer's report:**

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Thank you for the chance to review the revised paper. The authors have made an impressive attempt to address the concerns raised by the reviewers. However, I remain concerned over a number of points:

1) The conclusion needs to be reworded in the abstract - the paper states that "rubbing hands with ABAS is the most favourable choice for HCWs" but the study interviewed IDCMs to obtain their preferred method.

2) In the survey, which is fundamental to the results, the authors were asking participants to rank (I assume) the criteria on a 5 point Likert scale or perform a pairwise comparison. The pairwise comparison for the AHP is described in detail but reading through the criteria, I found it difficult to complete the MAUT survey based on the information given. My understanding is that the participants need to rank each criteria for each HH methods but it is not clear how this occurs. For example, criteria 1) Short time application (sic) Is the ranking based on whether the application time is important (5) or not important (1) for each HH method?, this is implied by the authors comments, but not clear in the paper. The other criteria also need to specified.
3) The description of the MAUT method on page 8 would be improved with a description of what each step means, being able to provide a plain English description would be helpful for the general readership.

4) The paper would benefit from a substantial edit in order to improve clarity and readability.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review

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Not suitable for publication unless extensively edited
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