Reviewer’s report

Title: Accuracy of acute burns diagnosis made using smartphones and tablets: a questionnaire-based study among medical experts

Version: 0 Date: 24 Sep 2017

Reviewer: Anthony Charles

Reviewer's report:

I wish to thank the authors of this manuscript entitled "Accuracy of acute burns diagnosis made using smartphones and tablets: a questionnaire-based study among medical experts". This is an important topic and this manuscript will be better received if the following points are addressed.

1. Case and image selection: it will appear based on the this study that the definition of adult and child is far from conventional and the statement that the definition of a child or adult was based on the health care organization is significantly problematic. For this study, children and adults definition should be conventional and standardized among all images. A 13-16 year old is a child in any society.

2. Data collection procedure: Did the 8 participant who were asked to later repeat the questionnaire 2 weeks after the first session have the 51 picture sent to them in a random manner? If so, please clearly state so.

3. The methodology for the handling of missing data is unclear. The authors state "Since a missing answer here would imply removing all ratings for that specific image, missing answers were replaced with the answer furthest away from the bedside in the following manner: for TBSA, the diagnosis furthest away given by another participant for that specific image was used; for depth, the category furthest away from the bedside assessment was used. Please cite and clarify this method. Are you using multiple imputation?"

4. Given that most smart phones have the magnification options, was this used? and if so, why would you expect any significant difference between a smart phone image and a computer image ?.

5. Your results show that clearly the South African Specialist is better at estimating burn sixe than the Swedish specialist. You attribute this to familiarity of the South African surgeon to the cases. Please provided demographic data of the burn patients and the burn specialist. It would be interesting if the images displayed were those of black patients only, the familiarity argument may be valid, however if cases present were black patients only, the study is somewhat biased against the Swedish burn specialist.
6. This study is a nice attempt to address telemedicine utilizing the smartphone. This study clearly lacks the comparison between real-time bedside assessment and the smartphone which is what is needed. Assessment using questionnaire methodology is not ideal. The issue of time to completion may also have affected results. Burn depth assessment using digital photography is inadequate and this has already been established.

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

Yes

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

No

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

Unable to assess

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I am able to assess the statistics

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