Reviewer's report

Title: A cost minimisation analysis alongside a clustered randomised trial in teledermatology

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Reviewer: Trine Strand Bergmo

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Major Compulsory Revisions

I believe that the title ‘A cost minimisation analysis alongside a clustered randomised trial in teledermatology’ is misleading. It seems that the cost effectiveness data is mostly based on expert opinions and costing manuals (Table 1) and not patient-level data, which the title suggests. The trial included in total 631 patients, but no information on either total number of visits, visits per patients, number of follow-ups, number of teleconsultations or any background information on the subjects were provided. The authors have estimated three visits per episode for all patients without any rational for doing so. On page 7, first paragraph the authors provide some information on the proportion of consultation prevented by teleconsultation and refer to information described elsewhere with no reference. In addition, resource use related to examination and treatment has been estimated based on the six most common diagnoses for skin problems and general prevalence data (expert opinion).

The only resource use data based on trial observations included in this costing study seemed to be time use for GPs and dermatologists, which I believe, is from a separate study with only 8 participants and published in a different article (ref no. 8). It also seems that the costing results reported in table 2 are based solely on the simulation results. According to the text, the paper aims to provide more than uncertainty/sensitivity and scenario analyses (abstract, page 11 and 17 first paragraph).

My main concern therefore is the soundness and quality of the underlying data used to calculate the mean costs. If this paper is a decision-modelling study and not trial-based, all available data on store-and-forward teledermatology from the literature should be included.

The authors must clarify study design and provide detailed information on the number of consultations, the number of follow-ups both total and per patient for both groups in addition to the the mean and total costs for the two groups. They should also justify the criteria used to ensure the validity of the estimated resource use and discuss implications for decision-making.

Minor Essential Revisions

1. Describe in more detail the patient flow and the following costs for both
groups. For example, did the patient need a second consultation to receive the
treatment advice from the dermatologist? If so, this would imply almost twice as
many consultations for the intervention group compared to the control group
(except for the 20% prevented consultations, page 7). Was the cost of the
dermatologist consultation at the end the trail for all patients included in the cost
calculation?

2. Page 7, first paragraph please clarify the prevented consultations for the
control group.

3. Clarify the reasons for choosing CMA. How did Pak et al measure clinical
outcome? I assume that reduced waiting time and earlier diagnosis can improve
the recovery process. Was such potential improvement in health outcome
measured and included?

4. Elaborate the assumption of a six months recovery time horizon for both
groups. Some of the patients could have recovered without any treatment. Has
the recovery time for the two groups been recorded?

5. Page 9; by how much was the specialist consultations shortened by
teledermatology (mean and CI)?

6. Please, clarify the mean costs of the different parameters (base-case). For
example, it is useful for the reader to know how the mean investment cost per
episode was calculated (i.e. how many episodes and patients (n) were this cost
based on?). Moreover, how many visits/patients are included in the mean cost for
follow-up visits?

7. In the Discussion page 17, the authors indicated that the proportion of
preventable consultations varied by disease group. This is important information
and requires either further clarification or a reference depending on source of this
claim.

The authors could also discuss the use of charges or fees to reflect actual costs
in health system costing.

Minor details
Please ensure that the layout and references are correct and in accordance with
the journal’s requirements.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a
statistician.

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