Author's response to reviews

Title: Estimating travel reduction associated with the use of telemedicine by patients and healthcare professionals: proposal for quantitative synthesis in a systematic review

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Author's response to reviews:

Reviewer 2
The modified proposal is still not clear in some issues. I would like to comment along the items of my previous review as followings

Title of this study is difficult to understand. It is unclear what the authors are going to do. I would suggest the title as
‘Estimating travel reduction associated with the use of telemedicine of patients and healthcare professionals: proposal for quantitative synthesis in a systematic review’

Response
We accept this proposal, but suggest using ‘by patients…’ rather than ‘of patients….’

Reviewer 2
Consider the scores for study design criteria, the authors mix up between study design and data collection. The first class of
‘(1) studies in which data on avoidance of travel or referrals through use of telemedicine were collected prospectively (score 3)’
From this criteria, the study of any design that has data collection prospectively can achieve 3 scores. This is not appropriate if only a descriptive study was done in prospective data collection.
The authors should have criteria related to only the design.

Response
We thank the reviewer for these comments. However, our proposed approach does not represent a mix up between study design and data collection. Rather, it recognises the reality that all classifications of study design, such as that used by the Cochrane Collaboration, take account of how data in studies are obtained.
All classifications indicate that prospective studies provide stronger evidence than retrospective studies. Also, prospective collection of data provides a stronger evidence base than estimates based on expert opinion. The scores for our criteria reflect these relativities. We appreciate that there are other elements in study design but have used a pragmatic approach here to provide discrimination between different types of study without using more detailed criteria that would introduce unrealistic complexity into our model.

We do not see a difficulty, in principle, with giving a prospective descriptive study a score of 3, bearing mind that to be included in our analysis such a study would have to meet the selection criteria listed on pages 4 and 5.

In the Methods section we have now used the words “three classes related to study design” in place of the previous subheading. We have also added some words of clarification after the information on the three classes of study.

Reviewer 2

A part of risk of bias is commented in 2.1 above. The others are some unclear items of ‘intervention’ in the subheading of study performance, on page 6, should be clarified. The authors should present clearly what intervention is referred in their review, intervention for treating patients or intervention in a trial. If the later one, this item cannot be used for the study of other designs, eg descriptive study.

Response

We do not entirely follow the point made by the reviewer, but confirm that in our review ‘intervention’ refers to an intervention for the treatment of patients. We have added words to the relevant item under study design (page 5).

Reviewer 2

I don’t think we can reduce risk of bias of the included studies in a systematic review because the studies were already done. What we can do only assess their potential risk of bias. Thus the sentence of ‘To reduce the risk of bias, we will assess study design, study performance and sample size.’ is not appropriate.

Response

We thank the reviewer for drawing our attention to a possible inconsistency in the wording that we used. The issue is really about reducing the risk that bias in studies will influence the results of our analysis. We have changed the wording on page 3 to make this point clear and to mention the assessments of study design, performance and sample size which are used in calculation of a weighting factor.

Reviewer 2

I still find that sequence of subheadings should be modified. Review and Data synthesis subheadings in the introduction should be parts of the methods. The
authors present what they will do in the identified studies, this is methodology.

Response
We accept this point and have moved this material from the Introduction to the Methods section.

Reviewer 2
In addition, subheadings of the method are not in the same level. I would suggest
1) Searching strategy, 2) selection criteria, 3) Article selection and data extraction, 4) Assessment risk of bias (this includes study design, study performance and sample size) and 5) Data synthesis (this should describe how the authors will synthesize the extracted data).

Response
We have made changes to subheadings, as suggested.