Reviewer’s report

Title: Age-treatment subgroup analyses in Cochrane intervention reviews: a meta-epidemiological study

Version: 0 Date: 03 Jul 2019

Reviewer: Livia Puljak

Reviewer's report:

Dear Editor,

Thank you for giving me the opportunity to review the manuscript BMED-D-19-00896. This is very interesting manuscript. I would like to suggest the following revisions:

Abstract:
- Sentence "However, there are concerns…” - should be removed or revised as it is not elaborated so it does not add much to the current version of the abstract. The authors only mentioned that there are concerns, but did not explain why there are concerns about the validity of subgroup analyses.
- "22 reviews…” - it would be better not to begin a sentence with a number
- The list in the brackets does not include all information sources that were mentioned in the manuscript.

Introduction
- Since 2015, Cochrane Collaboration is simply called Cochrane.
- "infrequently reported in Cochrane reviews" - could you please provide details about sample of Cochrane reviews analyzed and exact numerical meaning of infrequently.
- Please provide more details about "Empirical evaluations using evidence…” - what did those studies show?
- Please explain meaning of the "scattered evidence"
"In order to understand quality of evidence" - could you elaborate on this in more detail? I am not sure that your study is analyzing quality of evidence.

Methods

- Protocols of Cochrane reviews should not published in PubMed?

- A section titled Eligible reviews should be added, describing characteristics of Cochrane reviews that were eligible for inclusion in the analysis.

- The major flaw of the methods used to detect Cochrane reviews that have planned age-treatment subgroup analyses is reliance on methods in a finalized Cochrane review. This aspect needs to be analyzed in Cochrane protocols, which are available in CDSR. Sometimes Cochrane authors remove parts of the methods from the protocol that they planned, but were unable to do eventually in a full review.

- It appears that only one author abstracted data, with no verification by another author. This is not optimal approach, particularly concerning the type of data used here.

- Analysis of clinical relevance: eligible Cochrane reviews were retrieved on July 29, 2018 and there is no indication that eligible reviews were limited within a certain time period. Then, analysis of clinical relevance was conducted in January 2019. Some reviews may have been very new, and potentially relevant results may not have had a chance to be incorporated yet in the analyzed sources.

- In the results it is indicated that one diagnostic protocol and three intervention protocols were excluded from the 1000 randomly selected studies, but I do not understand how is this possible because protocols should not be on PubMed.

- For transparency, it would be great if the authors can provide a supplementary file with references of Cochrane reviews that were analyzed in the study.

Discussion

- For reference #29, please provide information whether they did not plan it, or they did plan such analysis, but were unable to do it (reviews other than one-fifth that is mentioned).

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.

Not applicable

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

Yes

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 am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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