Author’s response to reviews

Title: CHALLENGES OF RAPID REVIEWS FOR DIAGNOSTIC TEST ACCURACY QUESTIONS: A PROTOCOL FOR AN INTERNATIONAL SURVEY AND EXPERT CONSULTATION

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Mr Georg Heinze
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Thank you for the feedback and the opportunity to resubmit our protocol entitled “CHALLENGES OF RAPID REVIEWS FOR DIAGNOSTIC TEST ACCURACY QUESTIONS: A PROTOCOL FOR AN INTERNATIONAL SURVEY AND EXPERT CONSULTATION”. We have followed your last suggestions in order to have a clearer manuscript. We submitted a revised version (track changes on) reflecting the changes made. In addition, we provide below our replies to peer-reviewer comments. We hope these changes adequately address your plan of action for publication.

On behalf of all authors,
Reviewer #1

1. The authors have opted not to undertake a traditional systematic review to identify methods for rapid reviews of diagnostic tests. The reference list includes several previous related systematic reviews. Therefore, the authors should spend further time in the introduction justifying why a systematic review is not required, and instead why they have opted for the interview approach.

Reply: Thanks for your comment. In fact, we previously performed a review of abbreviate methods for diagnostic synthesis of evidence. We only found one publication about abbreviate methods that can be applied to the development of diagnostic rapid reviews (despite the authors did not suggest the direct application of their findings to the development of rapid reviews). We added a sentence in the protocol about this publication. However, please notice that our question is focused on methods currently in use for developers of rapid reviews; then, a review of methods published in the literature (but not in use) could be insufficient. Instead, our team conducted a scoping review of methods used in the development of diagnostic rapid reviews based on published reports (see https://osf.io/3vhnx/?view_only=d08721e63f344f1c93ae7500a00e9f86). The findings of this exploration will be published shortly and it will be helpful for all our future studies.

2. The methods of the semi-structured interviews are clear and thorough. Those for the international survey are less thorough. In particular the authors should provide further details as to how many people will be interviewed as part of the feasibility study, and what conditions must be met to proceed to the full survey from the feasibility study. What themes/questions will be asked as part of the survey?

Reply: Thanks for your comment. We added more information to this section following your advice.

3. Abstract & Discussion - Within the Discussion of the Abstract and the opening of the Discussion, "conduction of" would be better described as "conducting".

Reply: Thanks for your observation. We follow your advice to produce a revised version of this protocol.
4. Some sentences are very long e.g. Introduction, 1st paragraph. Please split these into shorter sentences to help improve the readability of the article.

Reply: Thanks for your observation. We follow your advice to produce a revised version of this protocol.

5. Methods, International Survey - Define HTA.

Reply: Thanks for your observation. We follow your advice to produce a revised version of this protocol.


Reply: Thanks for your observation. We follow your advice to produce a revised version of this protocol.

7. Declarations - "Not applicable" is an incorrect response for the "ethics approval" statement. Please update this with details of the ethics approval (as described prior to the Discussion).

Reply: Thanks for your comment. We added more information to this section following your advice.

Reviewer #2

1. Working definition of a "rapid review". The term rapid review can mean different things to different people. In order to avoid confusion and unnecessary variation in responses from different researches is good to have a starting (working) definition or to systematically discuss the various elements that could be different in a rapid review. Stating the working definition of a rapid review from the authors and/or listing the elements that can be different is needed.

Reply: Thanks for your suggestion. We added a working definition of rapid review with the corresponding citation. However, at present there is no a common accepted definition for Rapid reviews, and we included this issue as a potential limitations of our research.

2. Current duration of diagnostic accuracy reviews. It would have been interesting if the authors could provide some data about typical durations of current diagnostic accuracy reviews. In particular, the Cochrane Diagnostic editorial teams may have some data about
time to protocol to time to publication for Cochrane diagnostic accuracy review (head Jon Deeks)

Reply: Thanks for your suggestion. We added information about recent estimations performed by the Cochrane DTA editorial Team.

3. Diagnostic test definition in Abstract line 55, 56. These lines read a bit difficult and are also a bit confusing by highlighting that diagnostic tests are intended ".. to further clarify the character and prognosis of patients". The word prognosis may confuse readers. Diagnosis is about finding out which condition is responsible for the patient's complaints or to detect whether a certain condition is present or absent (including whether a patient has a specific stage of a certain condition). So the interest is cross-sectional in nature in diagnosis, although we may need follow-up to find out what was going on at the moment of testing. Please rephrase to avoid confusion.

Reply: Thanks for your observation. We follow your advice to produce a revised version of this protocol.

4. Diagnostic accuracy studies. Diagnostic studies covers a broad range of different questions and study designs. Diagnostic accuracy studies are an important subgroup of diagnostic studies. Please provide a key definition what a diagnostic accuracy study is and why they are important. Not all readers know exactly what accuracy studies are. Mention single test and comparative diagnostic accuracy studies. In particular highlight whether multivariable diagnostic models and added value studies are also considered as "diagnostic accuracy studies" or whether they are excluded from this study.

Reply: Thanks for your observation. We follow your advice to produce a revised version of this protocol.

5. Summarize main findings and challenges form earlier projects on rapid reviews. Several scoping type of projects and reviews have been done in the field of intervention rapid reviews. A short summary (box perhaps) of the main issues and challenges in rapid reviews of intervention studies would be helpful and interesting to the reader.

Reply: Thanks for your suggestion. However, we believe that similar summaries have been already published. We will consider to include this information in the discussion of the findings, in the final report of this research.

6. More information on questions in the semi-structured interviews. To give the reader a better understanding what will be discussed in these interviews, it would be helpful to provide some more information on key questions in the interview. It also provide the
opportunity for readers to give more informative feedback to the authors. Would that be possible?

Reply: Thanks for your suggestion. However, the script of the semi-structured review is highly dependent of the findings of the survey. Due to this, at this moment it is not possible to provide the key questions of this interview.

7. Limitations of aggregate data reviews of diagnostic accuracy. There are several limitations in diagnostic review studies based on aggregate data like investigating variation in diagnostic accuracy among patient level subgroups, variation in the actual value of markers between studies (non-standardized measurements and protocols), variation in the use of cut-off values between studies. Rapid reviews based on aggregate data will suffer from these same limitations. Please add that for certain questions and circumstances even rapid reviews will be a waste of time, and individual patient data reviews will be the best way forward.

Reply: Thanks for your comment. We added more information about the mentioned methods following your advice.

Associate Editor

1. Please check literature on methodology for rapid reviews, e.g.

Reply: Thanks for your suggestion. We included additional references in the revised version of this protocol.