

## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Sequelae of multidrug resistant tuberculosis: protocol for a systematic review and meta-analysis
<b>AUTHORS</b>	Alene, Kefyalew Addis; Clements, Archie; mcbryde, emma; Jaramillo, Ernesto; Lonroth, Knut; Shaweno, Debebe; Viney, Kerri

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Marieke J. van der Werf European Centre for Disease Prevention and Control
<b>REVIEW RETURNED</b>	19-Sep-2017

<b>GENERAL COMMENTS</b>	<p>Main comment: The protocol will be registered in PROSPERO. Therefore, it is unclear to me why it also needs to be published in BMJ Open since the objective of PROSPERO and BMJ Open seems to be comparable, i.e. inform the research community about a planned study.</p> <p>Minor comments: How will the quality of the quality assessment be guaranteed? Will a second reviewer check the quality assessment of the included manuscripts? Study setting: Please define what will be considered high and low TB burden countries; same for age groups adults and children. Discussion: Reference 3 does not provide evidence on the increase of associated post-MDR TB sequelae as far as I know. The authors write that 'sequelae of MDR-TB are poorly understood and inconsistently reported'. The fact that sequelae are inconsistently reported seems to me a potential limitation of the study. However, I did not find this listed among the limitations of the study on page 3.</p>
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<b>REVIEWER</b>	John Lynch University of Washington, Seattle, Washington, USA
<b>REVIEW RETURNED</b>	30-Oct-2017

<b>GENERAL COMMENTS</b>	Well designed protocol, clear goals, methods and outcomes. I do wonder about how much data there are regarding some of these outcomes, especially economic outcomes for individuals (as opposed to systems). A brief review of the literature does not find much in this specific area. Regardless, an important topic that needs attention.
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## VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

Reviewer Name: Marieke J. van der Werf; Institution and Country: European Centre for Disease Prevention and Control; Competing Interests: None declared

Main comment: The protocol will be registered in PROSPERO. Therefore, it is unclear to me why it also needs to be published in BMJ Open since the objective of PROSPERO and BMJ Open seems to be comparable, i.e. inform the research community about a planned study.

Response: PROSPERO is a system for registration of systematic reviews whereas BMJ Open gets our review out to a wider audience in a publication.

Minor comments:

How will the quality of the quality assessment be guaranteed? Will a second reviewer check the quality assessment of the included manuscripts?

Response: "Two authors, KAA, DS, will assess the methodological quality of the included studies, including the risk of bias in the selection of the study groups..." This information has now been included in the updated version of the manuscript in page 8.

Study setting: Please define what will be considered high and low TB burden countries; same for age groups adults and children.

Response: We will use the WHO high TB burden country lists to define and categorize high and low burden TB countries<sup>1</sup>. Regarding the age groups, now we have corrected that the stratified analysis will be performed by HIV prevalence (0 and > 0 %), and history of previous TB treatment (< 75% and >75%), instead of age group.

Discussion: Reference 3 does not provide evidence on the increase of associated post-MDR TB sequelae as far as I know.

Response: Thank you for this comment. The citation is now corrected.

The authors write that 'sequelae of MDR-TB are poorly understood and inconsistently reported'. The fact that sequelae are inconsistently reported seems to me a potential limitation of the study.

However, I did not find this listed among the limitations of the study on page 3.

Response: In page 3 last sentence, we have already mentioned that "...large degree of heterogeneity between published studies" will be a potential limitation of the study.

Reviewer 2:

Reviewer Name: John Lynch; Institution and Country: University of Washington, Seattle, Washington, USA; Competing Interests: None

Well-designed protocol, clear goals, methods and outcomes. I do wonder about how much data there are regarding some of these outcomes, especially economic outcomes for individuals (as opposed to systems). A brief review of the literature does not find much in this specific area. Regardless, an important topic that needs attention.

Response: We greatly appreciate the reviewer's efforts to carefully review the paper and provide important comments. We hope that our searching strategy will possibly identify all the available literatures conducted on the outcome of the study. If we are unable to get enough data on the economic burdens of MDR-TB, we will report this as an important research gaps that requires further research.

Reference

1. WHO. Use of high burden country lists for TB by WHO in the post-2015 era. Geneva, Switzerland: World Health Organization 2015.