Author's response to reviews

Title: Treatment outcomes from community-based drug resistant tuberculosis treatment programs: a systematic review and meta-analysis

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Author's response to reviews: see over
To the editor and reviewers,

Thank you again for your comments on our manuscript. We have made several changes to the manuscript according to reviewer comments. We have described our changes in detail below.

Thank you again for your consideration,

Dr. James Johnston
On behalf of all authors

Reviewer's report

Title:
Treatment outcomes from community-based drug resistant tuberculosis treatment programs: a systematic review and meta-analysis

Version: 2 Date: 14 March 2014

Reviewer: Cho Naing

Reviewer's report:
Weiss and colleagues present “Treatment outcomes from community-based drug resistant tuberculosis treatment programs: a systematic review and meta-analysis”

Overall, I recognize that the authors appear to be well-versed in this topic which is an important research area and would be welcome.

However, the authors do not follow the standard method of reporting a systematic review and meta-analysis (PRISMA checklist). This is a weakness that undermines the quality of this manuscript. The manuscript will require revamping following the PRISMA checklist, in order to yield a high quality report. Major compulsory revision

Methods

1. It will be better to follow the PRISMA guideline. The author will need to add “The present review have been reported according to the preferred reporting items for systematic reviews and meta-analyses (PRISMA)”
   We have added this statement to our methods section.

2. The methodological quality of the included studies should be assessed with an
appropriate tool. For example, NoS, MOOSE

We considered different tools, however, the NOS checklist does not assess the validity of these studies appropriately, as there is no comparison arm. The MOOSE checklist reports on systematic reviews. Other guidelines, such as the STROBE guidelines, were not developed to evaluate studies, but rather serve as a guide for reporting studies. As a result, we assessed the methodological quality of the studies using similar methodology to the previous published high quality systematic reviews in this area. Please see the section titled Validity assessment.

Data Analysis
1. For synthesis of data or pooling of data, what outcome measurement was used? The authors have reported the summary effect as 65%, 95% CI: 59-71 in the results as well as Table #3. If so, please describe about the outcome measurement in data analyses.

We used treatment outcomes as stated by Laserson et al (see section titled Treatment Outcome Definitions), and pooled treatment outcomes to reflect successful outcomes and unsuccessful outcomes. We have clarified this in the section titled Treatment Outcome Definitions.

2. Please, rephrase your sentences about the I-square test.
My suggestion
The heterogeneity between these studies was assessed with the I2 test. A calculated value of I2 >50% indicated substantial heterogeneity (Higgins and Green, 2011). For pooling of the results, we used a more conservative random-effect model. This is because even if the I2 statistic is low or zero, heterogeneity could still be a concern since it is likely to be present but undetected (Kontopantelis et al, 2013)

We have modified our sentences about the I-square test.

Results
The first sentence should be
Figure 1 shows the study selection process.

We have modified this accordingly. Our Figure 1 does describe the study selection process.

Discussion
It will be better if the authors can give the relevant subheadings.
We have added two subheadings in our discussion.

Minor Essential Revisions
Abstract
Background
Please, state the objective of the current study.

Suggestion
The objective was to synthesize available evidence on treatment outcomes of the community-based multi-drug resistant (MDRTB) and extensively drug resistant tuberculosis (XDRTB) treatment programs.
We have added this objective.

Methods
Search Strategy
A methodical strategy was used to identify relevant publications. The search strategy was modeled after Johnston et al. (2009) and Orenstein et al. (2009).[12, 13]
We have rephrased this sentence.

Suggestion
We followed the search strategy described in the published reviews (12,13) with (necessary/slight) modification.
We have rephrased this sentence.

Data analysis
Data extraction was performed by one author (P.M.) and reviewed by a second author (J.J).
We have rephrased this sentence.

Results
At line #1
Overall 10 studies (n = 1288 DRTB patients) were included for quantitative analysis.

At line #4-5
Meta-regression failed to identify any features associated…
Please, rephrase this sentence. Do you mean any factors?
We have changed the wording of this sentence.

Table 1
Suggested title
Table 1 Baseline characteristics of the included studies
Columns # 2: Location should read as country
Columns # 3: Date should read as Study period
Columns # 4: Study type should read as Study design
Please, give full name of XDR as a footnote

We have modified these Tables and added the footnote.

Table 2
Suggested title:
Table 2 Description of the treatment in the included studies
Columns # 2: Please rephrase; the comma is meant for what?
Columns # 3: Drugs in regimen should be “Duration of intensive phase (continuation phase)”

We have clarified this table.

Table 3
Suggested title:
Table 3 Outcomes at the end of the treatment provided
Columns # 3: It should be “number of successful treatment”
Columns # 4,5,6 merged and give a collective name as: “number of unsuccessful treatment”
And then, split into 3 columns (Default”, “deaths”, “failure”) under “number of unsuccessful treatment”,
In Table 3, at line # 11: CI should read 95% CI
In Table 3, at line # 12: I2 should read I2 statistic or I2 value

We have kept the same title, but modified the Table.

Level of interest: An article of importance in its field
Quality of written English: Needs some language corrections before being published
Statistical review: Yes, and I have assessed the statistics in my report.
Declaration of competing interests:
'I declare that I have no competing interests'