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)”

For further details, please see


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

For further details, please see


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.

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)

For further details, please see

Results
The first sentence should be
Figure 1 shows the study selection process. [Here, Figure 1 should be a PRISMA flowchart]

For further details, please access
[http://www.prisma-statement.org/statement.htm]

Discussion
It will be better if the authors can give the relevant subheadings.

May I suggest some examples

# 1. The variability in community delivery and community supports makes the evaluation and comparison of individual community programs difficult. However, this variability likely stems from the community-responsive design of such programs, and is likely essential for the success of cb-MDRTB programs.

My suggestion
Study limitations
The types/mode/ of community delivery and the community involvement varied across studies. Only a few studies reported the same outcome(s) of the same type/mode of delivery/involvement, which created some difficulties in pooling of outcome data.

# 2. treatment protocols are not well-described in most studies, preventing strict classification and comparison between treatment programs.

My suggestion
Study limitations
The treatment protocols in the included studies were not well-described in most studies. Hence, ascertainment bias is a concern.

# 3. Lastly, we were limited by the number of studies available for analysis; with only ten studies and 1288 patients available for comparison, subgroup analysis was quite limited.

My suggestion
Study limitations
As a small number of studies with small number of participants had assessed the similar outcome measures identified for the present review, it is limited to perform a pooled analysis (of all outcome variables).

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.

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]

Suggestion
We performed a systematic review and meta-analysis of observational studies. Studies reporting outcomes from the community-based treatment strategies, according to the WHO guidelines were included for analysis.

TEXT
3rd paragraph
Many groups should read many researchers or many research groups

Please, state the objective of this review. The authors may consider my suggestion in Abstract.

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]

Suggestion
Please, rephrase above sentences.
We followed the search strategy described in the published reviews (12,13) with (necessary/slight) modification.

Data analysis
Data extraction was performed by one author (P.M.) and reviewed by a second author (J.J.).
It should read
Data extraction was performed by one author (P.M.) and cross-checked by a second author (J.J.).

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?

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

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)”

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

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’