Reviewer’s report

Title: MDR-TB treatment adherence in migrants: a systematic review and meta-analysis

Version: 0 Date: 16 Oct 2017

Reviewer: Dominik Zenner

Reviewer's report:

Dear Editor

Thank you for the opportunity to review this paper. It a systematic review and meta-analysis on a very important topic - that of MDR treatment completion, on this occasion amongst migrants. On the whole this is a very well designed study with all the attributes one would expect from a systematic review, with reasonably summarised findings and a reasonable discussion. I am however, slightly concerned about the inclusion/ exclusion of papers, which resulted in a systematic review of only 15 papers of which 13 are case-series studies. It may be possible that important data/ papers are missing, and that is my main concern here - reasons are described further below. I have listed my comments sequentially below:

Introduction:

In general the introduction is a fairly broad summary of reasons for non adherence. Would suggest to limit introduction to setting the scene and some robust well referenced introduction to the topic and move some of the hypotheses about reasons to the discussion.

Minor points:

P4 154

... a major focus...

P4 159

But the reason for the lower who completion target is not lfu alone (higher mortality for example not necessarily adherence driven

L61- 244 million International migrants... many more internal
L69- yes but now 9m Bangladesh regimen available for many...should at least mention. Point still stands as often not applicable.

P5 176- social risk factors among migrants- contentious point- migrants are very heterogeneous- some may be socioeconomically deprived, many not. Need to qualify and reference pls

L79-83- highly context specific. E.g. In some U.K.-based Somali populations this may partly apply, in many others not. Please rephrase or take out.

Methods

Methods overall robust but does not include Web of Science and grey literature. Reviewing abstracts of important conferences (union, ers, ats, bts etc) could avoid that important findings from countries which publish less (but may be high-MDR) or that aren't published yet are retrieved.

In the analysis- I assume mortality was excluded as part of treatment outcome? What about those still on treatment? Please clarify.

Included studies- did they include RCTs ? They may not be representative as likely better outcomes, but need to specify.

Results- I am surprised at the low number of studies included for full text. I'm also surprised as countries report on this WHO indicator annually and in the Public Health England reports for example there are lots of details on outcomes. At least in countries with robust surveillance systems such data may be of similar or even better quality than some included studies. For example there is good outcome data stratified by U.K./non U.K. born from the UK, including peer reviewed (Anderson LF et al, Euro Surveill., 2013 vol. 18(40), and of course annual reports. It's a cohort study and I'm sure there are many more from other countries, so I'm not sure why the review found mainly case series... Please clarify.

The study quality is high- again a surprising finding given inherent problems with case series... or does this refer to the two CCS only?

I note from the flowchart that the commonest reason for non study inclusion was that data could not be disaggregated in an analyzable way. Whilst in itself this is reasonable- did the authors make attempts to contact the authors/ find publicly available data to answer this? For example in the Anderson paper above, most (and very granular data is available in PHE annual reports...).
Discussion

It may be worth summarising the main results in the first sentence. As it reads it launches into the comparison with the literature, as for example specialised and other clinics outcomes were not formally compared.

**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.

Yes

**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 recommend additional statistical review

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

Acceptable

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