Author’s response to reviews

Title: An updated systematic review and meta-analysis of the prevalence of hepatitis B virus in Ethiopia

Authors:
Teshiwal Yazie (teshiwalderess@gmail.com)
Mekonnen Girma (mekomenkonnen2302@gmail.com)

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Authors: Teshiwal Yazie and Mekonnen Girma
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Dear editor and reviewers, to make it clear we have indicated your comments/ suggestions with bold statements and then under each comment/ suggestion we have tried to reflect as indicated in bulleted statements below.

Reviewer 1
1. Page 5 (Line 10-12): Eligibility criteria: I would prefer to revise the sentence and make simple (in wordings). "Further, studies ............... were the inclusion criteria".
   • We have tried to revise the mentioned statements under the ‘Eligibility criteria’. Revised version; page 5, lines 14-17.
2. Authors have mentioned, the discrepancies in data extract between the two independent reviewers were resolved by discussion. It is not clear how is this been attained. Is the resolve been made as a subjective exercise? Generally it is done by recheck. Here author need to be clear on the process.
   • Data extraction related disagreements between data extractors was resolved by discussion and consensus. Which means that the data extractors used a pre-defined standardized checklist; however, differences or iginated from the data extractors themselves than the article itself were resolved through mutual consensus and understanding. This data extraction difference resolution process was not based on subjective exercise and/or personal judgement rather it was based on objective evidences as the data extraction process was conducted using objective based structured checklist.
3. Authors found "no influence on overall effect estimate while removing a single study at a time from a analysis…". Yes one can refer the figure 2 and guess the robustness of these studies. But I hope author have assess this trough any sensitivity analysis as well, missing in the text or not clear. I would ask authors to represent this results more specifically.
   • Thank you dear reviewer according to your suggestion we have included a statement explaining the sensitivity analysis result (stability of the pooled effect estimate while removing a single study one-by-one from the analysis at a time). According to the result, the overall prevalence did not significantly
changed while removing a single study at a time from the analysis. Revised version; page 8, line 30 and page 9, lines 1-2.

4. Meta-regression, provides the sources of heterogeneity as province, study group, screening method, and quality of papers, with highest for "quality of papers". The proper interpretation of such results is missing in the text. Should be included.
   • We have revised the meta-regression result interpretation statement in the results section of the revised version manuscript. Revised version; page 8, lines 27-28, page 11, lines 30 and page 12, lines 1-2.

Reviewer 2

1. There are lots of grammatical and spelling errors. I recommend a thorough language editing.
   • Dear reviewer, according to your recommendation we have corrected several grammatical, spelling and contextual mistakes.

Background

1. What really warrants this update since there is a recent review? What are the keys differences between this review and the previous one by Belyhun et al. (2016).
   • The rationale of conducting the current systematic review and meta-analysis considering the previous review conducted in 2016 have been explained under the background section. Revised version; page 4, lines 2-9.

2. Where is the reference to the previous reviews since this an update?
   • The reference of the previous review (ref 19) is included under the background section. Revised version; page 4, line 3.

Methods

1. Any specific reason for choosing this period (2010-2019).
   • Currently the Ethiopian government has given emphasis on reducing the burden of HBV infections throughout the country. Though there was a review conducted on viral hepatitis in 2016, it included 60% of old studies conducted before 2010 and the review lacked detailed analysis and explanation of HBV pooled prevalence estimate. Therefore, the reason to select 2010-2019 as a study period was to include the latest articles important to pool the prevalence estimate that can be vital in designing and implementing intervention programs and guidelines to reduce this national and international public health issue.

Results

2. Page 7 Line 13: This is contradictory to the earlier statement that all included papers were cross-sectional in nature
   • Thank you dear reviewer once again for your valuable comments and suggestions. Regarding the study design of the included studies in the current systematic review and meta-analysis, the earlier statement was correct and we have removed the second statement. Revised version; page 7, lines 21.
Additional corrections
• We have revised the entire structure of the manuscript according to the journal’s requirement.