Reviewer's report

Title: Antiviral treatment for treatment-naïve chronic hepatitis B: Systematic review and network meta-analysis of randomized controlled trials

Version: 1 Date: 28 May 2019

Reviewer: Sofia Dias

Reviewer's report:

The authors have comprehensively addressed most of my comments, particularly regarding inconsistency checking a presentation of results. However, I have a few outstanding points that require reporting and clarification:

1. in Table 3a (and other similar tables, including Appendix F) it is not clear what the values in the top triangle represent, why they differ from the lower triangle and why there are some empty cells. Are these results obtained from simple pairwise meta-analyses? If so, how were these computed? were random effects models used? I suspect there are not enough studies to estimate pairwise random effects models for all comparisons so are these results from a mixture of fixed and random effects? This needs to be clarified.

2. related to the comment above, the estimates of the between-study heterogeneity and their 95% credible intervals need to be presented for all analyses, including the node-splits. Given the small number of studies included, it needs to be noted whether or not the posterior distribution for the between-study heterogeneity has been informed by the data or if it is simply the same as the prior distribution.

3. Appendix E states that p<0.05 will indicate evidence of inconsistency. However, a value of p=0.099 is also highlighted in bold. When checking for inconsistency, the values of the between-study heterogeneity for each node-split model should also be checked as a reduction of heterogeneity compared to the main NMA analysis can also indicate inconsistency.

4. The odds ratios and 95% credible intervals for the main outcomes should be given in the abstract.

5. line 192: "Inconsistency evaluates..." should be "Inconsistency check evaluate..."

6. line 184: "evidence conflict against" should be "evidence conflict with"

7. line 195: "inconsistency in the network. In this case one could argue that the direct and indirect evidence..." should be changed to "inconsistency in the network; that is the direct and indirect evidence..."
8. line 291: note that choice of best treatment should also take the relative effect into account.

9. line 312: finding inconsistency does not mean different classes of treatment cannot be compared in an NMA - it means that for the studies of the different treatment classes identified, there were effect modifiers that suggested the evidence should not be combined. If the studies had been conducted in similar ways and in similar populations then they could be compared. The reasons for this heterogeneity were clinical and mentioned earlier in the manuscript. These should be identified here with a note that for this assessment the studies identified were too heterogeneous to combine, which manifested as inconsistency.

10. line 368: I do not understand the comments on lack of connectivity of the networks. Maybe specify which outcomes these comments refer to.

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