Reviewer's report

Title: Comparative efficacy of serotonin (5-HT3) receptor antagonists in patients undergoing surgery: A systematic review and network meta-analysis

Version: 1 Date: 17 April 2015

Reviewer: Florian Naudet

Reviewer's report:

Major Compulsory Revisions

I performed the statistical review and I'm satisfied with the statistical methods used in this meta-analysis. I feel confident in the results.

I just think that it could be important and useful to report all forest plots (and extracted data) concerning head to head meta-analyses (with the heterogeneity assessment in these studies).

Authors could provide more details in their result about the exploration of the transitivity assumption.

Also, I missed an analysis of adverse events. Even if a drug or a combination of drugs have shown differences in terms of effectiveness with another, utility of this strategy should take into account risks of this strategy.

Minor Essential Revisions

Please legend CI or PRI in figure 3.

Here are my response to all BMC medicine questions.

1. Is the question posed by the authors new and well defined?
   Yes it is.

2. Are the methods appropriate and well described, and are sufficient details provided to replicate the work?
   Yes. I think that the report of the head to head meta-analyses (and the original data) could be important to be reported.

3. Are the data sound and well controlled?
   Yes.

4. Do the figures appear to be genuine, i.e. without evidence of manipulation?
   Yes.
5. Does the manuscript adhere to the relevant standards for reporting and data deposition?
Yes.

6. Are the discussion and conclusions well balanced and adequately supported by the data?
Yes, but author should discuss the quality of the included evidence in the discussion section:
- Where there differences across comparisons in terms of study quality?
- Authors have also included non-randomised study. The interest of this choice should be clarified in the discussion section.

7. Do the title and abstract accurately convey what has been found?
Yes

8. Is the writing acceptable?
Yes

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

None concerning this paper.

(1) I had relationships (board membership or Travel/accommodations expenses covered/reimbursed) with Servier, BMS, Lundbeck and Janssen who might have an interest in the work submitted in the previous 3 years

(2) My spouses, partners, or children have no financial relationships that may be relevant to the submitted work; and

(3) I have no non-financial interests that may be relevant to the submitted work.