Author's response to reviews

Title: Are Systematic Reviews Up-to-date at the Time of Publication?

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Author's response to reviews: see over
Answer to the Reviewers

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Authors: Elaine M Beller, Joyce K Chen, Una L Wang and Paul P Glasziou

We appreciated your detailed review; the answers to your questions, point by point, follow.

Reviewer #1: Jessie McGowan

Major Compulsory Revisions
1. This is an important topic as it is important to know how up-to-date a SR is at the time of publication. How did you conduct the random sample to arrive at 300 SRs?
Response:
The sampling method description has been expanded to describe the source and collection of the set of systematic reviews in more detail, and the random selection of the 300 used in this manuscript.

Minor Essential Revisions
2. The citation for citation #9 does not seem complete. Please check the style guide.
Response:
We believe the formatting of this reference agrees with the information and example given in Systematic Reviews’ instructions to authors, quoted here:

The Mouse Tumor Biology Database [http://tumor.informatics.jax.org/mtbwi/index.do]

3. In the background section, you state: “Many readers of systematic reviews scan the abstract in order to determine the relevance of the review to their needs.” Is there any evidence to suggest how reader determine relevancy – is it the abstract, or the title, or the keywords, the background, etc.?
Response: A reference for this statement has been added (Dogan et al, reference number 7).

4. In the conclusions you state: “To aid readers in rapidly determining the currency of a systematic review, we believe that the date of search should be present in its abstract. Improvements in the quality of abstracts of systematic reviews and ways to shorten the review and revision processes to make review publication more rapid are needed.” Can you provide suggestions on how you think this can happen?
Response: We had originally included this in the discussion section, rather than in the conclusions, and have expanded this topic there to mention completion of the PRISMA checklist on article submission.

Discretionary Revisions
5. The finding of a 8.0 month publishing delay is interesting. From the 300 citations, did you do an analysis of where the SR were published, such as open access versus traditional journal publishing? How many of these were from The Cochrane Library? This may be interesting to understand publishing behavior in order to determine how and where better reporting can take place. You could make a note that this could be a topic for further research.

Response: We have now included a brief analysis of the publication location. None were from the Cochrane Library, as this is not part of the Core Clinical Journals subset. We did consider the online publication date as the date of publication if that was ahead of print publication date.

6. PRISMA is essential for reporting of SRs. In your background, item 8 is mentioned as the related item. There is also full reporting tool for the electronic search strategy called PRESS upon which this item is based on. It may be useful to also note PRESS. This is the result of the work that you noted in citation 11 (No consensus exists on search reporting methods for systematic reviews. J Clin Epidemiol 2008, 61:748-754.). However, the focus is on the running of the search and it does not include the DATE of the search, which is the point of this research but it is related information to the larger issue.

Response: Thank you for this reference. We hope that we have re-written the article to emphasise the time to publication issue, and so will not include PRESS unless the editors require it, as we feel it could confuse readers.

Reviewer #2: Chantelle Garritty

MAJOR COMPULSORY REVISIONS

1) Briefly, this article attempts to analyze how up to date systematic reviews are, based on their search dates and time to acceptance and publication. Authors have concluded that very few reviews state search dates in both the abstract and methods sections with most appearing in the later. A few other general characteristics are provided with regards to the number and names of the databases searched.

2) The overarching issue with this paper is that the authors don’t appear to address the three objectives stated, with the methods only assessing objective 3. This mismatch is confusing the reader and is carried over throughout the paper. In addition, further clarity of the methodology is required especially in relation to development of the sample of systematic reviews. Part of the confusion is that the authors fail to make the distinction between monitoring and/or formally assessing a systematic review as being possibly out of date that takes into account several signals beyond just the search dates and times to publication etc. Separate but related to this are the processes and methods for actually undertaking an update of an outdated review. What the authors appear to be most interested in are the ‘time from last search to acceptance and publication’ and then the concept of reporting quality of abstracts of systematic reviews (e.g., ensuring they include the sources searched and search dates).

Response:

1. Thanks for pointing out this important issue. We have revised the objectives as below, and hope that this has made the paper clearer:

   “The primary objective was to evaluate how up-to-date systematic reviews are at the time of first publication, as measured by the time lag from last search date to publication. Secondary
objectives were to ascertain how much of the time from search date to publication was caused by delays in submission and revision of manuscripts, as compared with delays in the publishing lead time, and to determine whether authors provided information on search dates and database sources in the abstract of the review, as this is often the only part of a systematic review that is read by someone screening for relevant papers.”

2. We acknowledge that there has been considerable research into monitoring or formally assessing a systematic review as being possibly out of date at some time after its publication, however we wanted to simply address the length of time between date of last search and publication, which would be an easy metric for assessing recency by readers of abstracts. Hence this manuscript attempts to address only that issue. We hope that our revised version makes it clear that we are not looking at the issue of updating reviews in any way.

4) In writing this article, if interested in ‘search dates’ and ‘abstract reporting’ it is important to make mention of the PRISMA statement thereby referencing what the current reporting standards is for systematic reviews. The authors don’t provide enough of an argument for is why including ‘search dates’ in the abstract is more important over other information especially given word limits if in fact this is one of the key intents of the paper.

Response: We have modified the background section to emphasise the importance of up-to-date of systematic reviews, and have brought in the PRISMA guidance suggestion that information sources including search date should be in the abstract.

ABSTRACT:

5) The objectives of the paper are missing from the abstract – not clear what the purpose of the article is upon glancing the abstract

Response: Thank you for pointing this out. We have added a sentence to the abstract as follows:

“Our main objective was to determine the recency of systematic reviews at the time of their publication, as measured by the time from last search date to publication. We also wanted to study the time from search date to acceptance, and acceptance to publication, and measure the proportion of systematic reviews with recorded information on search dates and information sources in the abstract and full text of the review.”

6) The methods section indicates this is a descriptive analyses but also fails to mention that the authors conducted a survival analyses therefore beyond descriptive

Response: We used Kaplan-Meier survival techniques to arrive at median times, and to display the results, but we did not test any hypotheses, or compare groups formally, therefore we believe this is still a descriptive study.

BACKGROUND:

7) This section should be better researched to reflect the paper’s intended objective (which is unclear to the reader at this stage).
Response: This has been done, as outlined above.

8) Would suggest presenting the **definition of systematic review** the research team was working from (even though there is no consensus on a formal definition, one should be stated); would also include a definition of 'update' (Moher & Tsertsvadze, 2006); and if the focus of the paper is on survival – would have elaborated on the Shojania et al. (2007) paper to give broader context to the issue of outdated reviews.

Response: We used the definition as previously used by Moher et al in their JCE paper in 2007, and have made this clear in the extra information about the sampling of reviews.

9) Also, there has been some work done previously in this realm that should have been reported (Systematic reviews can be produced and published faster. Authors: Margaret Sampson, Kaveh G. Shojania, Chantelle Garrity, Tanya Horsley, Mary Ocampo, David Moher. Journal of clinical epidemiology 1 June 2008 (volume 61 issue 6 Pages 531-536 DOI: 10.1016/j.jclinepi.2008.02.004)) – this should be cited in addition to which the authors should indicate how this research is novel from the Sampson paper.

Response: We had not located this paper, and we thank you for pointing this out. We have incorporated this into our paper, and mentioned that these times have improved somewhat, but are still longer than desirable.

10) To reiterate, the stated versus actual focus of the paper based on the objectives is unclear. However, given what was reported in the results section – again, reporting search dates and looking at times to acceptance and publication followed by reporting in abstracts is the focus of the methods and results section. Given limits, what does PRISMA indicate should be reported for each section including a structured abstract, and methods? What is the importance of reporting 'search dates' in abstracts?

Response: We hope we have sufficiently addressed this, in our revision of the objectives and outcomes.

**OBJECTIVES:**

11) Paragraph 1 – if the primary objective was to evaluate how up to date systematic reviews are at the time publication – the authors have missed the mark entirely by focusing solely on the search dates as this is just one of several possible signals for outdatedness. There are **several other factors** that should be taken into account when making this determination (e.g., are there quantitative and qualitative signals that would suggest the findings or conclusions are outdated?). Regardless, this objective was not addressed appropriately in this manuscript. If the authors intended to evaluate how up to date the 'searches' of the systematic review were at time of publication – then this should be clearly stated and should not be confused with assessing the overall update including its findings as current. Nor should it be confused with reporting search dates in abstracts.

Response: We hope we have sufficiently addressed this, in our revision of the objectives and outcomes.
12) Even the secondary objective (determining how much time from search date to publication was caused by delays in submission and revisions in manuscripts, as compared with delays in publishing lead time) was not addressed appropriately in this manuscript. This would entail interviewing/surveying authors of systematic reviews for this information as well as journal editors in terms of their processes. Relying on reported search dates and publication dates, and database entry dates cannot address these issues.

Response: We have revised the objectives as: “The primary objective was to evaluate how up-to-date systematic reviews are at the time of first publication, as measured by the time lag from last search date to publication. Secondary objectives were to ascertain how much of the time from search date to publication was caused by delays in submission and revision of manuscripts, as compared with delays in the publishing lead time, and to determine whether authors provided information on search dates and database sources in the abstract of the review, as this is often the only part of a systematic review that is read by someone screening for relevant papers.”

13) The third objective appears to be more the focus of this paper (i.e., determining whether authors provide information on search dates and databases sources in the abstracts of systematic reviews).

Response: Whilst this was not our primary intent, this was an important finding, and therefore has more prominence in the results than might be suggested by the objectives. We hope that by our revision of the objectives section, this fits better into the overall paper.

14) Nonetheless, this section needs to be revised to more adequately to reflect what was actually conducted.

Response: We have revised this section.

METHODS:
Paragraph 1

15) How did the authors arrive at the random sample 100 SRs indexed in Medline from each 2009-2011? This process is unclear. If simply going by Medline indexing terms, this should have been verified with eligibility criteria applied around a pre-determined definition of what constitutes a systematic review.

Response:

This has been expanded in the methods section, as explained above.

16) Was a formal Medline search strategy developed to identify the sample from which they drew the systematic reviews?

Response:

This has been expanded in the methods section, and used the same search strategy as the Moher et al 2007 paper which has now been referenced.

17) What was the size of the population the authors drew from?
Response: There were 860 SRs about interventions that we drew 300 from. Information about this has been added to the paper.

18) Also, why was Core Clinical Journals filter chosen – a rationale should be provided. Why not just draw from all SRs indexed in Medline during those years?
Response:
The CCJ filter was chosen because we wanted a broad enough selection of journals, but also to limit the number of citations to screen. Medline does not index all medically-related journals, so is in itself a filter. Even with the CCJ filter, the Moher et al search retrieved more than 4500 citations to screen. We have added more explanation about this to the paper.

19) More description around what types of systematic reviews were included would help to give context to what was included in the sample (e.g., were only reviews of interventions included or other were all types included? Across what fields? Etc.)
Response:
This has been expanded on in the methods section, to clarify that they were reviews of interventions only.

20) Was there any thought given to stratifying the identified reviews Cochrane versus non-Cochrane? Or systematic review produced by well established agencies (e.g., NICE, AHRQ EPC program etc.)
Response:
Cochrane reviews were not included, as they are not part of the CCJ subset. We were not confident that attribution of agencies is done well enough to include this in our analysis, although we agree this would be interesting.

21) Overall, the methods outlined are not appropriate to address the primary or secondary objectives of the paper as they are currently stated. Methods seem to be geared towards the third objective but only an assumption based on the remainder of the present draft.
Response: We have revised the objectives and methods sections of both the abstract and full text.

Paragraph 2:
22) Outcome measure 1 - does not address any of the three primary objectives as they are currently stated (possibly objective 3 - the issue of reporting search dates in the abstract);
Response: We hope that our revisions, as explained above, have addressed this.

23) Outcome measure 2 –using the last search date to date of acceptance and publication as a proxy for delays – how have the authors defined ‘delay’? Be careful with this wording as ‘delay’ should be operationally defined and made explicit. Is this not instead just ‘time to acceptance’ or ‘time to publication’ as opposed to using terminology that could infer to readers - purposeful setback or interruption in the peer review process/journal submission process?
Response: We hope that our revisions, as explained above, have addressed this.

24) There is no formal outcome measure related to objective 3 as it’s currently stated (search date in abstract).
Response: We have added this to the outcome measures section.

Paragraph 3: Data management and statistical analysis
25) ‘Survival analysis was conducted to determine…..from search to acceptance’ – would it not have been prudent to capture ‘from last reported search’ as several systematic reviews run updated searches during the final phases of the review to ensure all relevant information has been captured so there are different search points during the conduct that need to be considered and accounted for.
Response: Yes, we know that many researchers of systematic reviews run updated searches across the study period to ensure all relevant information has been captured. Therefore, we extracted the date of final search provided in the methods section as a cut-off point in this study.

26) How are multiple databases handled if they had different search dates?
Response: We extracted the last (newest) date, although we found very few papers with more than one date reported.

27) There is no formal evaluation of the systematic review findings in this article (as per Objective 1) – mismatch of objectives and methods.
Response: We hope we have now clarified this.

RESULTS:
Paragraph 2: Search date and databases stated in the abstract and full text
28) If no search dates and/or the data sources could not be identified – should these have been included as true systematic reviews in the sample? This raises the issue as to the validity of the sample.
Response: We randomly sampled 300 systemic review articles indexed in Medline from the National Library of Medicine’s Core Clinical Journals subset of journals. The definition of a systematic review was a very broad one, as used by Moher et al. Papers that did not report the exact databases used often had a statement like “x databases were searched” or “electronic databases were searched and all relevant articles extracted”, which we felt met Moher’s definition.

Paragraph 3: Characteristics of databases in systematic reviews
29) Authors report six articles did not mention how many databases had been searched – if that is the case, should these have been classified these as true systematic reviews in the first place – again, this brings into question the validity of review sample if strictly going by Medline publication type
Response: As for response to Reviewer 2 comment [28] above. We did not use Medline publication type, but rather, the search as used in the 2007 Moher et al J Clin Epidemiol paper.

30) Would have liked to see which journals published SRs the quickest;
Response:
We have added information about which journals published SRs, but felt that there were insufficient SRs in each journal to answer this question.

31) Also, what types of journals were publishing these reviews? Traditional journals? Open-access etc.? One might expect that the later would publish quicker and this should be explored.
Response:
The CCJ set of journals is predominantly traditional print journals, although some of these have an online-first branch.

32) Again, how many were Cochrane vs. non-Cochrane; where were they published? Across what fields? What countries? – some general demographics to give context to the reviews.
Response:
Cochrane reviews were not included, as they are not in the CCJ subset. We have added some information about the highest-SR-publishing journals and range of journals.

33) Overall, found the results section thin in relation to objectives.
Response: We hope that our revision has addressed this.

MINOR ESSENTIAL REVISIONS:

BACKGROUND:
34) Paragraph 1 – reference #2 – would have used the Journal of Clin Epi co-publication as the reference here instead of the Cochrane Review.
Response: This has been done.

35) Paragraph 2 – sentence 3 – ‘For users of review’ – add ‘s’
Response: Thank you for revising.

36) Paragraph 2 – insert ‘of’ between ‘publication of the review meant that…’
Response: Thank you for revising.

DISCUSSION:
Paragraph 1.
37) Would provide a reference for ‘since reviews can date rapidly’.
Response: A reference has been added here.

38) Not sure what message the authors are trying to convey to readers? Are they advocating reliance on information only provided in the abstract? Should messaging be that readers should be encouraged to read the full text? Perhaps somewhat inconsistent to scorn systematic reviews that don’t report search dates thoroughly in abstracts (if that is the overarching aim of the article) especially in light of PRISMA standards and word limits. Or, do changes in reporting need to be considered? Messaging of importance is unclear.
Response: We have edited the discussion section and hope that our messages are clearer.

39) ‘this delay is important to users of reviews’ NOT reviewers Paragraph 3.
Response: Thank you for revising.

40) ‘but Cochrane these was’.….would rephrase to ‘but for Cochrane Reviews these were….’
Response: We have revised this sentence.

41) Referencing mid-sentence is disruptive to the reader and should be at sentence end if possible.
Response: This has been done.

Paragraph 5.
42) References need to be provided to substantiate the first sentence.
Response:
We feel that these points have been referenced earlier, and would be referencing the same papers again, so have not included them again here.

43) Would have been good to again draw in Sampson (2008) paper (Systematic reviews can be produced and published faster) and to relay findings to this for comparison where possible to demonstrate novelty of this work and how aligned the findings are.
Response: Thank you, we have done this now in the background and discussion sections, as described earlier.

CONCLUSIONS:
Paragraph 1.
44) ‘up-to-date review’ should be ‘reviews’
Response: Thank you for revising.