Reviewer's report

Title: Improving the methods used in systematic reviews of adverse effects: a proposal based on evidence from published reviews.

Version: 2 Date: 7 October 2005

Reviewer: Max H Pittler

Reviewer's report:

General
This is a systematic review of systematic reviews. It is true to say that the methods used in systematic reviews of adverse events require improving and therefore work in this area is most welcome. This manuscript however requires further detail.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Abstract. The results section should be more specific. Rather than reporting ‘most of the reviews…’, ‘…more than three quarters..’ or ‘…fewer than half…’ I would have liked to see the actual numbers.

Methods. Please specify your exclusion criteria (what about safety reviews assessing the complete safety profile including interactions). Were other sources included (ie hand searching). What about discrepancies in reviewers’ opinion (two independent reviewers). The inclusion criteria require clarification. It is stated that ‘a review was included if the primary outcome was an adverse effect...’ (is this meant as a specific adverse event?). In the results then it says ‘rather than investigating all potential adverse effects...’

Results. A flowchart of the study selection process detailing the reasons for exclusion is required. The items assessed and presented in this section come somewhat as a surprise and could have been introduced earlier. Why were these one used and not others? In some cases it is not entirely clear how they relate to the methods of systematic reviews (types of adverse effects of interest, types of interventions studied).

Discussion. To be more useful for the reader, each heading in the results should be discussed separately and the reasons why it is important and how it could be improved detailed (this could also be a part of the results section itself).

Conclusion. Aiming to establish a cause - effect relationship in safety studies is of course important. However, because safety is of so much more importance than effectiveness in terms of public health the question of whether the association between an adverse event and an intervention is actually causal becomes less of an issue. The mere indication is sufficient to let the alarm bells ring. Consequently, quality assessment in safety studies is of lesser importance than it is given here.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

I suggest changing the term currently used – ‘adverse effect’ (related to the intervention)— to ‘adverse event’ (related to the patient outcome) which is correct for this systematic review

Words such as ‘only’ or ‘disappointingly’ should be taken out of the results section

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Discretionary Revisions (which the author can choose to ignore)
What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

'I declare that I have no competing interests'