Reviewer's report

Title: A Review of the Methodological Features of Systematic Reviews in Maternal Medicine

Version: 1 Date: 18 September 2006

Reviewer: Laura Magee

Reviewer's report:

General
Maternal medicine is an important and inadequately researched area of obstetric care, and involves care-givers from many disciplines including internal medicine, obstetrics. I agree that one needs to search a wide variety of sources in order to obtain what is often limited information about medical disorders in pregnancy.

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

The stated aim of the review is to examine “…the methodological features of recently published systematic reviews in maternal medicine”. I would respectfully suggest that the aim of the review was to compare Cochrane and non-Cochrane reviews on quality criteria. The latter has the additional advantage of being focussed. I believe that the hypothesis was that the Cochrane reviews would be of higher quality. Although there is a reference provided for how to review quantitative reviews, the “checklist” used was not provided, and it was not stated whether or not it was modified from those referenced. This becomes particularly important when one considers the potential arbitrariness of some of the quality criteria used. For example, assessing the ‘narrow focus of question’ could be quite subjective. What does ‘use of reference list’ mean? I assume that all reviews referenced the studies included, so I would like clarification, please, particularly because this was seen in only 15/39 Cochrane reviews. Also, without this information, it is difficult to interpret the comment in the first paragraph of the discussion stating that “…literature searches in reviews are currently generally poor”.

In the results, whether or not there was “good awareness of where” meta-analysis is valuable was commented on for the Cochrane reviews and not for others. Whether meta-analysis was performed when appropriate is a better question than whether or not meta-analysis was performed, particularly given inclusion of different types of studies.

There are other factors to consider when comparing Cochrane and non-Cochrane reviews. First, what were the types of studies included in the reviews? The Cochrane database will include only RCTs, but other reviews included non-randomised studies. This would bias the Cochrane reviews to be of higher quality. Second, the Cochrane database was searched only for 2006, whereas Medline was searched from 1996 “to date” (presumably 2006 but the date should be specified); methodology has improved over the last ten years (and the RevMan manual has been revised), again biasing Cochrane towards being of higher quality. Finally, there is no limit to the length of Cochrane reviews, as opposed to strict limits placed on other reviews published in journals.

In terms of limitations of this review, one must be that the assessors of quality could not be blinded to whether the review was from the Cochrane or not. The Cochrane database is a widely respected source of high-quality and rigorously peer-reviewed quantitative reviews in the area of pregnancy and childbirth. I would suggest that this bias was illustrated in the discussion by the statement, “Taking into consideration overall good quality of Cochrane reviews, it is highly unlikely that these reviews missed such an important feature of literature search”. It is biased to give only Cochrane reviewers the ‘benefit of the doubt’. Could other explanations apply, such as the possibility of a p<0.05 because of multiple comparisons or the definition of ‘use of reference list’?

In the discussion, it is stated that there is an urgent need for cumulative evidence on management of high risk pregnancy from a maternal point of view. I would agree, but I would respectfully suggest that part of what we need is more rigorous methodology for observational studies.

I do not believe that duplication has occurred.

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

Epidemiology is misspelled in the Corresponding Author section.

On page 5, the key words are followed by the “$” sign, which I assume relates to a problem with font
The discussion would benefit from some comment about the usefulness of searching without language restrictions and attempts to include unpublished data. The importance of restricted language searching is controversial, and attempts to include unpublished data are time-consuming and of low yield. What is the yield of contacting authors for missing information? Also, there are registries of Rats but none of observational studies.

**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 importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No

**Declaration of competing interests:**

“I declare that I have no competing interests.” I have reviews in both the Cochrane and the non-Cochrane categories.