Reviewer's report

Title: Optimal search strategies for detecting cost and economic studies in EMBASE.

Version: 1 Date: 14 April 2006

Reviewer: Julie Glanville

Reviewer's report:

General

----------------------------------------------------------------------------------------

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

----------------------------------------------------------------------------------------

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

1. The authors have analysed records for one year (2000) - the Discussion should really explore the implications of this for searching earlier years in EMBASE and later years. This is particularly important for years after 2000 as the number of indexing terms EMBASE now seems to assign to records have vastly increased, with a potential to impact on the performance of these strategies.

2. The methods section of the abstract needs attention for a couple of sentences that don't make sense.

3. p.9 Typo: 'Theoptimized'


----------------------------------------------------------------------------------------

Discretionary Revisions (which the author can choose to ignore)

1. The authors' definitions of economic evaluations are fairly rigorous. Our experience working with health care decision makers in the UK is that although well conducted economic evaluations are ideal even poorer evaluations can prove useful (for a variety of reasons). The authors state that their economic records are a subset of their cost studies, so it would be helpful if the authors could offer some explicit guidance to searchers in the Discussion section whether they feel the search strategies for cost papers would be a useful 'second line' search to identify 'poorer' economic evaluations, if the economic studies searches had not yielded enough information. Can the two searches can be offered as a stepped approach?

2. It's not clear from the authors' definitions of an economic study whether evaluations using models based on hypothetical populations would be regarded as an economic study. If they were, then it would be helpful to bring this out in the text. If not, then the authors should ideally assess whether modelling studies (which are increasing in number) are being missed by the strategies, and report in the Discussion.
3. In the second paragraph of the introduction the authors comment on the problems of accessing economic literature. While this may have been true in the past there are now a number of databases of economic evaluation studies available, designed to make this task easier (and providing added value in terms of categorisation and critical appraisal), including NHS EED, HEED, CODECS, EURONHEED and the Harvard Register. It is still important to be able to efficiently access economic studies in EMBASE, but it might be helpful to searchers reading this paper to remind them of other resources which might complement a focused search of EMBASE. Declaration of interest: I am the project manager for the NHS EED database.

4. The authors developed their strategies using terms suggested by a range of individuals. Given that we only have the words that authors have given us in titles and abstracts, and any indexing applied by EMBASE, to search with, it would be interesting to see a discussion of why records were not analysed to assess the words they actually contain rather than words that individuals thought might be high yielding.

5. In the introduction the authors assert that databases index inconsistently. Their results seem to show that for EMBASE there are some quite reliable indexing terms, with reference to sensitivity, which can be used in recommended strategies. It might be useful to consider what aspect of inconsistency a database such as EMBASE seems to suffer from in this context - from this example it might be that EMBASE's problem is in over indexing (poor precision) rather than under indexing (poor sensitivity)?

6. In the second paragraph of page 10, the authors note 'This is simply a reflection of the very low concentration of cost and economics in the huge EMBASE database'. I think some examples that bring out how low precision is caused by the fact that the search terms (e.g. costs) are actually used in many other contexts and so generate lots of false drops might help to illustrate the point. For example, many abstracts end with a concluding thought that 'the costs of introducing this technique need to be investigated' or include introductory statements such as 'the costs of smoking to society are ever present'. This type of general usage of search terms such as 'costs' means that finding economic evaluation studies and genuine cost studies can seem like finding a needle in a haystack.

What next?: Accept after minor essential revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I manage the NHS EED database (economic evaluations) produced by the Centre for Reviews and Dissemination, University of York, England, UK.