Reviewer's report

Title: Glomerular Disease Search Filters for PubMed, Ovid Medline, and Embase

Version: 1 Date: 16 November 2011

Reviewer: Ruth Sladek

Reviewer's report:

Summary

This paper describes the development of search filters for glomerular disease which will be welcomed by those seeking renal information. Overall, the filter development method is appropriate and this work is another example of a typically excellent output by this group. However I have two key concerns relating to this manuscript itself which I would need to see resolved before I could make a decision in relation to recommending whether or not this article should be published. Other discretionary changes relate largely to being more precise to improve clarity for the reader.

Major Compulsory Revisions

The authors do not place their research within the context of any broader body of literature around filters research other than their own. It therefore comes across as ‘insular’ and this potentially limits its usefulness to others working in the field. This is notable in the text throughout the background through to the discussion, and unsurprisingly therefore, reflected in the references. References 1-2 relate to searching problems, and references 13 – 24 relate to sources of informing their choice of search terms. Yet references 3-12, used to position the current research, comprise solely the authors’ own works, for example, author RB Haynes is a listed author in all of these papers. At the least, there is a substantial body of UK search filter work to which the authors could selectively refer. Hence I consider the authors need to revise the manuscript’s text, and therefore references, in the light of this external assessment.

The second primary area for revision relates to the proof of concept searches. The paragraph on page 8 is unclear – I cannot determine what the authors did, or why, on the basis of the description provided. There is an assumption that the readers knows and understands what “proof of concept search” means. Inadequate information about the selection and type of the 6 clinicians is provided. The section in the results regarding this is therefore unclear, as is Table 3 itself and the discussion around it. The impact of this lack of clarity is substantial as Table 3 is the point of reference for the bulk of the discussion, namely paragraphs 2 and 3. The section commencing with “The result is an increase…” and ending with “…precision of the results was enhanced” is particularly confusing. In the absence of further information and clarity, I cannot assess this aspect of the methods.
Precision and accuracy rates have been reported in tables but not referred to in results. Precision in particular is important to searchers, and the authors refer to it in paragraph 3 of the discussion. This warrants inclusion in the results section.

When describing the results in the first paragraph in the Discussion, it would be more accurate to report the full range of sensitivities and specificities. For example, sensitivities ranged from 91.1% (not 93.8%) to 99%. Otherwise, the exact search filter to which the authors are referring should be named.

Paragraphs 2 and 3 in the results section should be reviewed on two counts. First, please detail the type of set (development versus validation) to which findings relate for both single term and multiple term filters. Second, please revise the wording around all reported percentages (in the results and discussion) to be technically accurate. For example, it is technically incorrect to say “All filters achieved over 93.8%...”. According to Table 2, it was at least 93.8%.

Minor Essential Revisions

In Methods/Study Overview/Paragraph 1 - Was this a ‘new’ reference standard process for this filter or is it capitalising on an initial corpus of review work reported elsewhere? Please clarify and cite as appropriate. Was it dual review?

In Results/paragraph 3/last sentence, the meaning of the last sentence is unclear. Is it perhaps “Filter performances in the validation sets were similar to those in the development sets”? Can this be quantified for the reader?

Can search dates be provided?

Discretionary Revisions

In Discussion/paragraph 2, sentence 4 “Depending on the search terms…” - would this be better positioned as a new paragraph as it introduces a new focus for discussion?

Re Discussion/paragraph 3, the final sentence “This may explain a small drop…” is somewhat puzzling for several reasons. Earlier the method of journal selection was justified on the grounds that it led to filters which generalised well, and quite a sound method for journal selection and division into testing/validation sets was presented. Is it now being suggested this is not necessarily true? Also, which filters are being referred? All filters had drops in precision. As I read Table 3, the differences in precision between each search in the development and the validation sets were significantly different and seem to be around the size of about 15% depending on the search. For a searcher using a filter in the real universe of the entire Medline database, a change in precision of 15% might arguably not be regarded as a small drop. I have no specific recommendations as to how the text here might be changed, but offer these thoughts for consideration.
Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.