Author's response to reviews

Title: Glomerular disease search filters for PubMed, Ovid Medline, and Embase: A Development and Validation Study

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Version: 3 Date: 21 April 2012

Author's response to reviews: see over
RE: Research article revisions

Glomerular disease search filters for PubMed, Ovid Medline, and Embase: A Development and Validation Study

Dear Editors,

We are pleased to submit our final revisions for the manuscript entitled “Glomerular disease search filters for PubMed, Ovid Medline, and Embase: a development and validation study”. We have carefully considered each suggestion for revision and have addressed them point-by-point in the attached document. We have made significant changes to this manuscript in two main areas. We have improved the reporting of the methodology used for the proof of concept searches and revised the referencing to better place this research in the context of other filter research. We hope that you will find this revised manuscript appropriate for publication in BMC Medical Informatics and Decision Making.

Thank you again for considering our manuscript for publication. We are open to any further comments or suggestions you may have to strengthen this research.

Kind regards,

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Response to suggested revisions for manuscript entitled ‘Glomerular disease search filters for PubMed, Ovid Medline, and Embase: a development and validation study’.

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Reviewer 1: Julie Glanville

Response to minor essential revisions:

1. Consider replacing the word ‘retrieval’ with the word ‘precision’ in the example of a search for treatment in membranous nephropathy.
   - We have reworded this sentence in the background section as per your suggestion.

2. Consider discussing the decision and effects of randomizing by journal rather than by article when creating the development and validation sets.
   - We have commented on the effects of this approach in the discussion. Division of articles into the development and validation sets at the journal level may have contributed to the lower proportion of articles with glomerular disease content in the validation set as outlined in Appendix A (3.41% in development set vs. 1.68% in the validation set) and therefore a drop in precision of results when the search filter was applied in the validation phase. However, the smaller size of the validation database compared to the development database may also be responsible for this. We have used this approach to develop and validate other search filters relevant to renal care and it has resulted in search filters that generalize well over publication years and journal types as cited in the methods section. It has also provided valuable insight as to what might occur if the search database were expanded to include the over 5000 journals indexed in PubMed.

3. Reconsider the use of the word ‘quality’ in the sentence “There is simply too much variation in the quality of accompanying search terms entered by the user, completeness of the database, and quality and consistency of indexing.” How is quality being expressed? Or is it really the variation that is the issue?
   - It is in fact the quality of search terms entered by the user that we are referring to. Use of search terms that are abbreviated, misspelled, too specific, or connected with unsuitable Boolean operators may result in suboptimal retrieval of relevant articles. This is a key limitation in the use of any bibliographic database with or without a search filter.
Reviewer 2: Ruth Sladek

Response to minor essential revisions:

1. Add in the word 'potential’ so the phrase reads ‘…illustrate the potential effectiveness of these new filters’ in page 5, paragraph 2.
   - We have reworded this sentence in the background section as per your suggestion.

2. Clarify the methods used for proof of concept searches.
   - We have elaborated on the proof of concept section in the methods and cited the relevant articles within Table 3. The reader should now be able to easily understand this section of the manuscript.

3. Consider further changes to place this research within the context of other filter research.
   - We have carefully reconsidered each reference cited in this paper. With the addition of references to acknowledge the contribution of other authors when referring to search filters optimized to retrieve studies and systematic reviews of diagnosis, etiology, treatment, outcomes, adverse events, prognosis, and clinical prediction guides in the background section, we have balanced out our own work with the contributions of others and have properly placed this research in the context of other filter research. Additional references to our own work throughout the manuscript have been used to support our methodology.