Author's response to reviews

Title: OvidSP Medline-to-PubMed search filter translation: a methodology for extending search filter range to include PubMed's unique content

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Version: 3 Date: 5 June 2013

Author's response to reviews: see over
5 June 2013

Dr Roberta Scherer, *BMC Medical Research Methodology*

Re: Manuscript 2121707813901775. *OvidSP Medline-to-PubMed search filter translation: a methodology for extending search filter range to include PubMed’s unique content [new title] by Raechel A. Damarell et al.*

Dear Dr Scherer,

Thank you for the opportunity to resubmit a revised version of our manuscript. We have addressed the concerns of Reviewer 2 in the point-by-point response following this letter.

We trust we have addressed all issues to your satisfaction. If not, we would be pleased to correspond further on any point of concern.

Yours faithfully,

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Response to Reviewer 2 comments

Title: OvidSP Medline-to-PubMed search filter translation: a methodology for extending search filter range to include PubMed’s unique content

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Version: 3
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Reviewer: Edith Leclercq

Minor Essential Revision

1. Page 16, second paragraph states the purpose of this study. I think here the authors also should mention that this is a nice method for identifying synonyms for medical terms, and that is is not the purpose of this study to develop a search filter for max sensitivity/recall. So that proposed search filter needs improvement later on.

Author’s response:
In the paragraph on study purpose, we have added a reference to high sensitivity/recall in the following sentence: It was not our aim to develop an additional high sensitivity/recall ‘search filter’ for capturing this content. The method’s reliance on frequency analysis to identify synonyms for MeSH terms has been emphasised in the Discussion section under Methodology Assessment (paragraph 2).

The intent of this study was to explore a methodology to extend the utility of a validated search filter which employs MeSH terms to the PubMed subset where MeSH terms are not available. The possibility of creating a search filter comprising only textwords for use in the non-indexed set using search filter methodology would be a natural extension but was outside the scope of this study. However, the relatively low retrieval of a number of text word equivalents suggest that any such investigation would need to carefully assess the relative weight of precision versus sensitivity.

2. However, only 18% of the lost set was identified, so still a huge amount of records is missed. Therefore I would also rename Table 4. "Final PubMed ..." suggests that the filter is made for optimal search results, and that is not the case. I would suggest the following title for Tabel 4: "PubMed Heart Failure Filter for identifying indexed and non-indexed studies combining the validated PubMed translation and supplementary textword only components (in bold)". The proposed search strategy is Table 4 can easily further developed into an optimal search strategy with the highest sensitivity. This is more or less suggested in the third paragraph of page 16.

Author response:
As table captions are limited to 15 words, we cannot include all the suggested details in the title. We have, however, replaced the word “Final” with “The full...”.

Caption now reads: The full PubMed Heart Failure Filter (supplementary textword-only component for retrieving non-indexed citations in bold).

The use of “full” as a substitute for “Final” is necessary to differentiate this version of the PubMed search from the validated PubMed translation shown in the PubMed column of Table 1.

3. However I do not understand the AND Boolean operator here. With AND you restrict your search, and with OR you broaden it. I think the statements here are not correct. At least the authors must this clarify further. "The AND operator might serve to broaden the search ...."is not true. In fact with too many AND's in a search string you will end with 0 data.

Author response:

We have not proposed using AND to combine disparate concepts, rather terms from a single search phrase (e.g. left ventricular dysfunction). This has the effect of removing the adjacency condition imposed upon them by straight phrase searching. E.g. “Left AND ventricular AND dysfunction” is likely to retrieve more citations than the phrase “Left ventricular dysfunction” because it will also identify potentially relevant variants such as “Left ventricular systolic dysfunction” and “Left ventricular diastolic dysfunction”. In this context AND broadens, rather than narrows, the search.