Author’s response to reviews

Title: Utilization of the PICO framework to improve searching PubMed for clinical questions

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Thank you for your comments and review of our article, Utilization of the PICO framework to improve searching PubMed for clinical questions. We have reviewed the comments and made the following revisions to the manuscript:

1. Comment: Abstract needs to be modified to reflect the changes in the document that came about from the statistical analyses:

The following sentences were added to the abstract, under results: 95% confidence intervals were calculated for the precision for each question using a lower boundary of zero. However, the 95% confidence limits were overlapping, suggesting no statistical difference between the groups.

The following sentence was deleted from the abstract under results: Searchers using the PICO templates retrieved a larger number of relevant articles within their search sets than did those searchers using the standard PubMed interface.

2. Comment: This is a randomized controlled pilot trial. I would urge the authors to put 'randomized" back in to the document and add the 'pilot" to show that their trial is truly meant to direct further research.

Under Methods in the abstract and in the text the opening sentence was changed to: This randomized trial was designed as a pilot study to measure the quality of search results using three different interfaces for the PubMed search system.

3. Comment: I am now only concerned with how the authors describe the meaning of this small study. The abstract states that PICO templates 'had higher precision scores' and 'retrieved a larger number of relevant articles'. While true, you do not state that these higher rates were not statistically significant, and you should do so. Equally you do not yet have evidence to support you conclusion that PICO 'can improve' or 'can affect' the precision of search results. Currently the statistics say the opposite.

Abstract was revised. See comment #1 above.

Replaced the text of the Conclusion in the abstract:

From: A search template that prompts the PubMed searcher to include the parts of the well-built clinical question (PICO) and the appropriate publication type or Clinical Queries in the search strategy can improve the precision of the search results.
To: Due to the small number of searches for each arm, this pilot study could not demonstrate a statistically significant difference between the search protocols. However there was a trend towards higher precision that needs to be investigated in a larger study to determine if PICO can improve the relevancy of search results.
Conclusions
Searches performed on a PICO-formatted screen retrieved a higher percentage of relevant citations than searches performed on the standard PubMed search interface. However, due to the small number of searches for each arm, this pilot study could not demonstrate a statistically significant difference between the search protocols. There was a suggestion of a trend towards higher precision that needs to be investigated in a larger study to determine if PICO can improve the relevancy of search results.

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