Author's response to reviews

Title: Barriers to the effective treatment and prevention of malaria in Africa: A systematic review of qualitative studies

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Version: 2 Date: 11 August 2009

Author's response to reviews: see over
Thank you for your continuing interest in our manuscript. We apologize for the delay in revising the paper, however we have made considerable changes in response to the reviewers comments. In particular we have updated the review and added additional databases to our search strategy. We believe the review is now much more comprehensive.

Our responses to the reviewers comments are in bold italics below.

**Reviewer’s report**
**Title:** Barriers to the effective treatment and prevention of malaria in Africa: A systematic review of qualitative studies
**Version:** 1 Date: 18 March 2009
**Reviewer:** Myfanwy Morgan

**Reviewer’s report:**
Minor Essential Revisions
1. The methods adopted are generally appropriate. However I was initially surprised to see that they used the CASP quality tool as the original version is quite lengthy and difficult to apply. I presume the 10 question version they cite contains the Items listed in Table 3 but am not clear how this information was used.

*To improve clarity of the paper and in response to the reviewers comment, this table has now been removed.*

In the Results they just describe broad criteria of exclusion - essentially that studies were fatally flawed - which is fine but just a need for clarification of their approach.

**We have added a clarification in the Methods section describing the selection of articles:**
To ensure we included purely observational qualitative data representing the views of the majority of patients and caregivers, we reviewed in detail the methods sections of all of the articles selected from the review of abstracts. We excluded the remaining quantitative studies, the second instances of articles found in both databases, those in which an experimental or interventional design was used, and those focused on either travelers, drug sellers, adverse drug events, or malaria in pregnancy. Of the remaining articles, we selected only those written in English, describing studies conducted in sub-Saharan African countries.

3. The data is well presented in Table 4 but the reported analysis is fairly basic. It would be useful to try and address some specific questions - such as have findings changed over time, are there differences between countries or populations? It would also be useful to try and take the analysis a step further - at present they are just identifying individual risk factors but is it possible to identify
a more comprehensive explanation of beliefs/behaviours based on the original papers and to consider the different issues of preventive actions and uptake and adherence with treatment. This may help to reduce the decontextualisation and strengthen the Conclusions.

We have added analysis of the results based on differences between countries and year of publication to the body of the text (Results). Table 4 has been divided into 2 separate tables, and the countries in which the study were conducted have been added, in order to allow for a visual analysis along the columns.

The characteristics of the studies selected are shown in Tables 1 and 2. The studies were done in 12 different countries, with the majority conducted in either East Africa (Kenya, Tanzania, Uganda – 18 studies), or West Africa (Benin, Burkina Faso, Côte d’Ivoire, Ghana, Nigeria – 13 studies). The others were conducted in Southern Africa (Malawi, Zambia – 5 studies), Ethiopia (2 studies), and Sudan (1 study). The articles were published between the years 1992 and 2008, with a median year of publication of 2002. Four of the 39 included articles primarily focused on adults, 19 articles primarily focused on children, and 16 articles were of mixed focus. Twenty-five studies took place amongst rural or semi-rural populations, 11 were conducted in both rural and urban settings, and 3 were limited to urban areas alone. Twenty-seven of the 39 studies included as respondents the caregivers of young children. Other groups studied included non-caregiver adults, health workers, traditional healers, community leaders, and school-aged children. Qualitative data were obtained mostly by means of focus group discussions and interviews.

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

Reviewer’s report
Title: Barriers to the effective treatment and prevention of malaria in Africa: A systematic review of qualitative studies
Version: 1 Date: 18 April 2009
Reviewer: James Thomas
Reviewer’s report:
Review of: Barriers to the effective treatment and prevention of malaria in Africa: A systematic review of qualitative studies
Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached)

1. Why did the authors only search Medline? I am not sure that this is the best source for identifying African research – in my own (limited) experience of working in HIV prevention in South Africa, we went to considerable lengths to find local research. We have also found that qualitative research is particularly difficult to find for our own systematic reviews, and have to search extensively in order to identify relevant studies. There are numerous other electronic databases that could be searched (e.g. some of the trials in the African Trials Registry may have qualitative components), and Google (and Google Scholar) is a useful source of material – including grey literature – that is not necessarily well indexed elsewhere. Reviewers also commonly write to all the authors of included studies, people working in the field and key organisations while searching as well as looking at research registers and the websites of key organisations. I think it is likely that there are many more relevant studies that this review has not identified. While the authors acknowledge in the discussion that the limited search may be a limitation, I think this should be stronger, and that it should also be acknowledged in the methods and a justification given for the search selected. In a synthesis of qualitative studies, there is not a necessity to find every relevant study (as is the case in a meta-analysis), since we are interested conceptual rather than statistical comprehensiveness. The limited search may therefore not necessarily weaken the review’s reliability, but I think it is fair to say that we don’t know whether a more extensive search would have simply found more studies that say the same thing, or a set of studies that shed an entirely new light on the subject.

*We have expanded the search to include Scopus as well, and have carried forward the search in both Medline and Scopus to June, 2009. This has increased the yield of citations from 276 to 1034, and the number of articles included from 27 to 39.*

2. I found it difficult to jump into the search strategy (p.4) without having a good idea of the scope of the review. I understood that it was concerned with local understandings of malaria, and the barriers to treatment, but the terms “referral and consultation” etc came as a surprise. I would suggest that a section before the methods on the scope and aims of the review would be a better way into the study for the reader. While not all reviews of qualitative research have explicit review questions, I feel that the reader would be assisted by a statement of the review question in this case.

*A statement of the review question is included at the end of the introduction:*

*We conducted a systematic review of such studies in order to identify common themes in the local understanding of malaria that might represent barriers to*
successful malaria treatment and prevention in sub-Saharan African countries.

3. I think we also need a clear statement of the inclusion / exclusion criteria of the review. While some of this detail is in the ‘selection of abstracts’, the fact that these criteria are not presented as a list suggests that there may be other criteria that the reader does not know about (e.g. did the studies have to be written in English?).

*We have included a clearer description of the selection criteria in the Methods section:*

To ensure we included purely observational qualitative data representing the views of the majority of patients and caregivers, we reviewed in detail the methods sections of all of the articles selected from the review of abstracts. We excluded the remaining quantitative studies, the second instances of articles found in both databases, those in which an experimental or interventional design was used, and those focused on either travelers, drug sellers, adverse drug events, or malaria in pregnancy. Of the remaining articles, we selected only those written in English, describing studies conducted in sub-Saharan African countries.

4. The population of interest also needs a clearer description. Studies that ‘focused on either travelers, or malaria in pregnancy’ were singled out for exclusion, but I wasn’t sure why.

*These articles were removed to reduce the heterogeneity of the sample we were examining. We expected these groups to be systematically different from the general population and felt it would not be appropriate to include their findings.*

5. Equally, I wasn’t sure why experimental studies were excluded. More clarity about the scope of the review is needed. (In the discussion it says that ‘there were limited data in the included studies by which to assess the rigor of the experimental methods used...’ – presumably this is an error?)

*Experimental studies were excluded as they would have included a very specific population currently being investigated and thus the findings could be biased.*

6. I think the search strategy should be given in full in an appendix. It was difficult to assess the search from the details given. 259 articles is relatively few to retrieve from a Medline search, so I would wonder whether relevant studies were missed. I thought the review of key references described ‘citation chasing’ – looking through the reference lists of included studies. The discussion suggests it was something else, so I think this needs more clarity too.
The search strategy has been moved to an Appendix, where it is given in full. See also response to point #1. Our yield of citations has now increased to 1034 based on our expanded search strategy.

7. I wasn’t sure what the purpose of the quality assessment component of the review was. The CASP checklist is well-known and is a good tool (though there are more in-depth tools available), but why was it used, and what impact did it have on the review? As far as I can see, no studies were excluded on the basis of their quality and quality was not an issue that was explored in the synthesis. Details of how the studies scored on the checklist are also not given in the tables (though Table 3 contains information about reporting). The quality assessment process needs to be written up more clearly: why it was done, what impact it had on the review and what were its results?

The quality assessment component as well as Table 3 have been removed as these were not found to have a significant impact on the review.

8. I also wasn’t sure why the interesting discussion (which was a bit limited, but is picked up later) about the use of local terminology was in the same paragraph as the statement about the quality assessment tool.

This discussion now has it’s own paragraph.

9. The methods of synthesis are quite sketchy, and you find out more about them in the discussion. At the least, reference 38 should be cited as the source of the methods used.

We have moved this reference to the methods and further elaborated in the Methods section are method of synthesis.

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