Reviewer’s report

Title: Treatment actions and treatment failure: case studies in the response to severe childhood malaria in Mali

Version: 1  Date: 7 August 2012

Reviewer: Deshka Foster

Reviewer’s report:

Thank you for inviting me to review this paper for biomedcentral. This research explores an important set of issues bearing on malaria management both at the local and health policy level.

Major Compulsory Revisions:

1. In the background section of the paper, the authors should provide an overview of the healthcare system in Mali. This would help the reader place the findings – concerning treatment choices and reported failures – in context. Some questions to consider addressing would be: Is malaria treatment free or subsidized for under-five children in Mali, as it is in many other sub-Saharan African nations? (If not, consider mentioning this and perhaps provide a contextual example of how much it might cost to treat a child with severe malaria). How available are anti-malarial medications? Are they provided at healthcare facilities, or must a patient purchase a hospital-recommended treatment at a separate pharmacy/store? Is there a noted or suspected difference between the quality of medications purchased locally versus those provided at a healthcare facility? Also, what types of medicines do “traditional healers” provide? And when caregivers administer such medicines at home, do they purchase them from a healer or gather/prepare them on their own?

2. For patients that used both “traditional” and “modern” treatments, in how many cases were these treatments used concurrently versus one-at-a-time? Figure 2 seems to suggest that all participants used both types of treatment at the same time. However, Conclusion, paragraph 1, sentence 4 makes it sound like all caregivers interviewed reported using both “modern” and “traditional” medicine with their children, but not necessarily concurrently. Figure 1, on the other hand, suggests that at least one child did not receive “traditional” medicines at all. Please clarify this issue.

3. Although you note at the end of the Study Limitations section (paragraph 3, final sentence) that since the time that this research was conducted ACTs have been introduced into Mali so treatment failure may be less common, it seems that the issue of “treatment failure” needs to be considered in more depth. First off, it may be more accurate to use a phrase such as “reported treatment failure” rather than simply “treatment failure” (Results section, 5th paragraph; Discussion section, 3rd paragraph; Conclusion section 1st paragraph) since data about
treatment failure was attained from caregivers accounts, is that correct? Do you have any information on what treatments the research participants used for the children, how they used them, or why they thought it might have failed? This could clarify the issue. If not, it is still important to consider other explanations for “treatment failure” – for example that the treatment used had expired, that an incomplete or incorrect dose was provided for example due to quick recovery from symptoms, that a specific treatment had side effects that affected its use, or certain local beliefs/practices surrounding a particular type of anti-malarial medicine. Are medications generally administered by healthcare providers at the hospital or do caregivers administer medicines at home even if a patient is taken to the hospital?

4. Methods section, paragraph 4, sentence 1: You need to provide more details on the participant selection and inclusion strategy employed in this study. You mention some aspects of the selection strategy in the Study Limitations section, but a more detailed description of the criteria and process belongs in the Methods section. Please also report how many households were recruited and if any were excluded or left out of the analyses and if so, for what reason. Were there any households with more than one child with illness suggestive of severe malaria? If so, how did you choose which child’s story to consider? It would also be nice to provide some brief details of how the interviews were conducted – were mothers and fathers interviewed together or was each participant interviewed in private? Given the numbers (Methods section, paragraph 4, sentence 1), it seems that some participants were interviewed more than once? If so, please explain how this selection was determined.

Minor Essential Revisions:

1. While the abstract tells the reader that 24 households were examined, it does not clearly provide the number of cases of ill children examined in the research. It would be helpful to clarify this by providing an “N” value alongside the percentages, for example, “For 76% of children, treatment began at home (n=18/24)…”.

2. It might be useful to standardize your use of some specific terms in this paper. As it reads now, you use “traditional therapies” at some points and “traditional remedies” at others. In figure 1, you use the term “traditional medicine”, but in figure 2, you say “traditional and modern remedies”. Terms such as “therapies” and even “remedies” conjure up an impression that “traditional” treatments might include both herbal medicine and spiritual ceremony. However, in the Background section of the paper, you use the term “herbal remedies”, which is much more specific. It would be helpful to select one term to describe the types of treatments provided by local healers, define it for the reader somewhere near the beginning of the paper with some specific examples of what the term includes, and stick with it throughout the paper.

3. Background, paragraph 3, sentence 3. The sentence “treatment of malaria in sub-Saharan Africa is strongly related to poverty” may be more clearly written as something to the effect of “treatment-seeking behaviors” or “decisions” in
sub-Saharan Africa “are strongly influenced by poverty”.

4. Methods, paragraph 3, sentence 1: Define “IMCI” and consider providing a brief summary of this definition for the reader.

5. Methods, paragraph 5, final sentence: Was consent written or verbal?

6. Results, paragraph 3, final sentence: This sentence could be written more clearly. For eg. “by the third step, only 14% of children” pursued treatment in the home?

Discretionary Revisions

1. Results section, paragraph 9, final quotation: This is an important point! You might consider fleshing it out with a sentence or two of discussion following the quotation.

2. If the data are available, it would be nice to see a discussion of whether any correlation was seen between the specific symptoms reported in the sick child and the type of treatment pursued. You discuss convulsions but do not provide data on how frequently this symptom was mentioned or some qualitative understanding of how it is described.

3. Conclusion, final paragraph, final sentence. Should it read “health system factors” rather than “systems factors”? Also, it might be nice to say “morbidity and mortality” here, rather than just reduction in mortality, since many children who survive episodes of severe malaria still end up with significant disability, which can have a long-lasting burden on the family, community and healthcare system.

Level of interest: An article of importance in its field

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