Reviewer's report

Title: Malaria Rapid Diagnostic Tests in fever case management: a study of the experience with their use at lower level health centres in Uganda

Version: 3 Date: 27 January 2011

Reviewer: Katie Reed

Reviewer's report:

Major compulsory revisions

This is an interesting paper about an important and topical subject. The authors have stated that it is part of a larger research project and I think that at present the current paper struggles to have an identity of its own. The background makes a good case for use of RDT's in the management of malaria, but spends less space on looking at relevant research into feasibility and acceptability of new health technologies, which appears to be at the heart of this particular piece of research. A more focused and evidence based introduction would build a foundation for the rest of the paper, and also hopefully help the authors focus on the results which are most relevant to their research question. This would lead to a major rewrite which would be my recommendation and I would encourage the authors to consider this. However the following comments refer to particular parts of the paper in its current form that I think require review.

Abstract ‘but the root causes for disregarding test results in treatment are elusive’ this is part of the fist sentence of the abstract, and it is not clear what it means, the abstract needs to be crystal clear.

Background pg 4, end of paragraph 1. ‘Given that the majority of fevers….this statement is very emphatic that money and ITNs have dramatically changed fever presentations in Africa. But it does not tell the reader that fevers caused by malaria have always been difficult to diagnose and have seldom been the cause of the majority of fevers. There needs to be more balance possible references to IMCI..

Pg 7 I like the idea of using a conceptual framework to help understand the factors relating to RDT use. However I think that it needs more work. The paragraph beginning ‘Feasibility.. does not quite agree with Figure 1. Later in the paper it is confusing then the framework becomes a matrix for the sorting of the qualitative date. Lastly Fig 1 needs to reference the models from which it is adapted.

Page 11 ‘Since parasitological based diagnosis was not part of the national recommended practice at the time of data collection, health workers were at liberty to use the diagnostic option that they felt most comfortable with.’ … This sentence is tucked away in the middle of the paper, but it is important and the implications should be spelled out in the background. . Some of the results refer
to the fact that current malaria diagnosis guidelines do not incorporate the use of RDT’s, we are not told whether the researchers supplied any new protocols so it is not surprising that the RDTs were used in very different ways. This might also be included as a limitation of the study.

Page 12 the word ‘consenting’ is used twice in the next paragraph. Consenting suggests that the attendees had already been informed about the research, and have given their informed consent to be part of it.

Pg 14 data analysis. This section requires more detail. You appear to be describing a basic thematic analysis, and as you quote Green and Thorogood in the references you might consult that text, to support your methods section.

Minor essential revisions

I would recommend the whole article to be professionally proof read, as small grammatical errors and typos make some sections difficult to understand. This also applies to the references some of which are inconstant in style or incomplete.

Background page 5. ‘In Uganda to our knowledge…… ‘this sentence is difficult to understand as it offers some facts but not conclusion.

Methods page 8. ‘Study HC’s… the following sentences and bullet points are not consistent, or not clear. ‘No previous involvement in a / any research’ perhaps relevant research might be better.

Page 9. ‘Conveniently’ I think ‘purposely’ would be a better choice of word.

Page 10 middle paragraph. This paragraph is unclear and has some repetition and could be improved

Page 12 middle para last two sentences. These are not consistent, first there is one test then three carried out.

Page 15 ‘some workers felt they did not have sufficient experience with RDT’s to complete the questions’ this affects the sample and should be commented on later.

Discretionary revisions

Methods page 8. The text suggests that Kapchorwa, Mubende and Iganga are rural; it would be useful to confirm this.

Page 9. The reader will be really interested to know how you decided to choose the ICT Pf, at present it suggest you choose it on ‘ease of use ‘alone, but I presume that the kits tested were also equally efficacious and in an acceptable price band.

Why did Iganga and Jinja initially miss out on supplies? Later in the results there are statements talking about lack of supplies with kits. It is useful to know
whether the researchers provided sufficient materials or whether these were delivered along with other medical supplies.

Page 16 Performing the RDT and adhering to the job aid. It is not clear whether these results were from the initial training session of the on the job review.

Fig 4. I think this is a very useful overview of the results and in that section (not in the discussion), perhaps this could substitute for some of the ‘quotations’ which you can use more sparingly to support your arguments.

The discussion is generally well written, but I think that it could make more of the results. The fact that the HC’s were using the kits with instructions but no protocol has created a lot of interesting data, but it’s not clear how relevant it is, except to say that RDT’s require to be part of a well planned, pretested and supported fever management protocol. The data about changing staff satisfaction and the acceptance (or not) of the community is something new and I think could be made more of.

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

**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