Reviewer's report

Title: Using Informatics Tools to Assess the Care and Outcomes of Patients with Respiratory Tract Infections Visiting a Rural Kenyan Health Centre

Version: 1 Date: 6 February 2006

Reviewer: Ronald C. C Merrell

Reviewer's report:

General: The Mosoriot EMR is a well recognized and well regarded system for rural medicine in the developing world. It is very gratifying to see the EHR being applied to facilitate care and move toward evidence based care. The authors report that 2986 clinic visits occurred in a one year period and 433 patients were selected for outcome assessments in their villages at 7 and 30 days. Follow-up was successful in 381/433. These patients all had respiratory infections and a very large number had not resolved at 30 days. The outcomes of the patients are well recorded but the impact of the EHR intervention is not clearly tested. I anticipate a number of questions that would arise in the mind of readers and believe they should be addressed in the MS.

1. The most important outcome would be the effect of the EHR on the management of the patients. This should be clearly stated and in any way possible quantified. You conclude that the EMR's and PDA were "useful tools" and I agree. However, the case is not made in the MS.

2. How were the 433 patients chosen? Could there have been a control group where the PDA was not applied? How would the outcomes have been affected by the use of the EHR and the extension of the EHR with PDA?

3. What treatments were applied and how do you explain the refractory nature of symptoms in so many patients?

4. The question posed by the authors is clear to me but may not be to a reader not familiar with the subject.

5. The methods are appropriate but there could be some improvement in the objectives to evaluate the outcome of the application of the EMR.

6. The discussion would benefit by expansion to discuss the situation when proper electronic data management are not applied to rural care. For example, the electronic system moves from incident care to longitudinal care or disease management. That is a crucial extension in the developing world and the work of the authors makes it possible.

7. The writing is excellent and the tables are well prepared. The photographs really set the tone for the actuality of rural care.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached): I believe the suggestions made in the narrative above should be addressed before publication.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct): none

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Discretionary Revisions (which the author can choose to ignore)
**What next?:** Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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

**Quality of written English:** Acceptable

**Statistical review:** No

**Declaration of competing interests:**

I declare that I have no competing interests.