Reviewer's report

Title: Estimates of the duration of the early and late stage of gambiense sleeping sickness

Version: 1 Date: 29 October 2007

Reviewer: Eric Fevre

Reviewer's report:

The authors present a well-written and clearly explained study which sets out to determine the duration of Trypanosoma brucei gambiense sleeping sickness, explicitly accounting for the different disease stages, and thus the overall duration of illness. The output of this paper will be of value in better understanding progression of this disease and will be invaluable in improving the modelling of transmission of this parasite.

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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)

1. In the general comments at the start of the introduction, HAT in general is referred to, whereas the paper is specifically about T.b. gambiense HAT. The authors might want to emphasise that the parameters relating to T.b. gambiense and T.b. rhodesiense are different, which would help clarify the distinction between the parasites for a non-specialised audience. There are two references, one of which is already cited by the authors, which make some attempt to address the duration of illness of T.b. rhodesiense specifically:


2. On page 4, the authors discuss the assumptions, particularly that of equilibrium between stage 1 and stage 2 patients. While they address the provisos of the study towards the end of the manuscript, some comment at this stage regarding the probable equilibrium state or otherwise in the populations under study would be useful.

3. Following on from point 2, above, can the authors be more explicit on the limitations of pooling data from several sites. While in practice I would agree that
there is no real solution to this, does doing so increase the chances of violating one of the assumptions?

4. Page 11 – Discussion – This is not the first attempt to quantify the natural duration of illness in untreated gambiense patients. It is the first attempt to properly quantify time spent in stage 1 and stage 2 of gambiense HAT – but the authors should cite Fèvre et al. (2004) who calculate survival times and duration of untreated illness of gambiense and rhodesiense patients – and who find that the median time from infection to death was 36 months.


5. On page 14 :” …providing for the first time estimates of the true duration of untreated infections.” See point 4, above.

6. All the figures are currently all labelled as Figure 1 in the captions.

What next?: Accept after minor essential revisions

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