Reviewer's report

Title: Anaemia in children with Plasmodium falciparum infection in a semi-rural community in the Mount Cameroon Region: prevalence, risk factors and perceptions by caregivers

Version: 1 Date: 28 January 2013

Reviewer: Roger Moyou-Somo

Reviewer's report:

General comment: The authors hypothesize that in the study area, other factors than malaria contribute for anemia. To demonstrate this, they recruited 351 participants, all malaria patients! It would have been better to consider anemic patients as the inclusion criteria rather than consider malaria patients. Alternatively they could have recruited malaria patients as they did and evaluate the level of anemia before and after appropriate malaria treatment. In this case, persistence of anemia after malaria treatment would be the prove that other causes exist

Minor issues not for publication

Abstract, line 12: replace length of fever by duration of fever

Methods.

clinical evaluation

First paragraph:
- line 2: body temperature is vague. The authors should precise whether the temperature was taken through the rectum, armpit, etc.
- line 11: ----the abdomen under the left coastal border (left should be added to make a difference with the palpation of the liver under the right coastal border)

Results:

Socioeconomic factors factors associated with haemoglobin concentration

Paragraph I: line2: p-value of 04 does not seem to be correct. This should be verified.

MAJOR ESSENTIAL REVISION

Discussion:

- 5th paragraph, line 5/line 6: it is stated that males were significantly more malnourished and had poorer iron status than females! On page 8, line 17, there is a sentence that supports the sex difference concerning malnutrition. On the contrary, I have not seen any result that supports the sex difference concerning the iron status. This should appear in the “Results” section

- Line 6: in this study, the contribution of helminthes to anemia is not well demonstrated. The authors only indicate on table 1, the average mean eggs of
STH per gram of stool which is quiet low. They should give more details concerning the type of STH (different species with their corresponding parasite load), since it is well documented that Hookworms are the main STH associated with anemia and that a certain parasite load is needed.

References
The layout of the references is not consistent: the title of publications is most often written in bold, which is not the case in references 6, 18, 19, 31, and 42. The references should be harmonized.

Tables:
Table 1: there are many missing information on this table, mainly brackets to include the nb and/or the % of different parameters. For example, first column, line “age groups”: # 5years should become # 5years % (n) and >5years should become >5years % (n). This remark stands also for the line sex.

Concerning the line “mean age in years (nb)”, the second column should be 6.45±7.9 (n). Lastly, the line “prevalence (%) of fever (Temperature #37.5°C)” should become “prevalence (%) of fever (Temperature #37.5°C)” (n)