Reviewer's report

Title: Modified Alvarado Scoring System as a diagnostic tool for Acute Appendicitis at Bugando Medical Centre, Mwanza, Tanzania

Version: 1 Date: 10 December 2010

Reviewer: Oliver Muensterer

Reviewer's report:

Overall, this is a nice study that evaluates a clinical scoring system for the diagnosis of appendicitis in a Tanzanian population. The methods seem sound and the style of writing is very comprehensible. I have only a few minor points to add that need to be addressed.

Major Revisions:
- This study would be stronger if the results in Table 4 were also stratified into 1) age, and 2) complex or simple appendicitis.

Please calculate the percentage of appendicitis vs no appendicitis in different age groups, for example Pediatric (0-15 years), Adult (16-60 years), and Geriatric (over 60 years). It would be interesting to see if there are differences.

As the authors state, Appendicitis comes in different degrees. The definition of "perforated" vs "gangrenous" vs "fibrinopurulent" vs "acute" depend on the clinician or pathologist involved. I would suggest grouping them into "simple" (nonperforated) and "complex" (perforated) and expanding Table 4 to include these categories.

Minor Revisions:
- In Background, paragraph 2, sentence 3: "Difficulties in diagnosis arise in very young, elderly patients and females of reproductive age because they ARE MORE LIKELY to have an atypical presentation, and many other conditions MAY MIMIC acute appendicitis IN THESE PATIENTS [6]." I would change the sentence as indicated in capital letters.

- In Discussion, paragraph 4, sentence 2: "However, much ??? perforation rates have been reported from other centers in Nigeria." Please specify if higher or lower.

References:
- In Discussion, paragraph 5, last sentence: "However, a large population based study ..." requires a reference.

Conclusions:
- I would add to the recommendation a 3rd bullet:
"- A MASS score above 7 should indicate appendectomy without the need for further imaging"
Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I have no competing interests.