Reviewer's report

Title: Role of rapid urease test and histopathology in the diagnosis of Helicobacter pylori infection in a developing country

Version: 1 Date: 28 June 2005

Reviewer: B J Marshall

Reviewer's report:

General

1. Is the question posed by the authors new and well defined?
The accuracy of the urease test in patients taking PPI is assumed to be less since the urea breath test and histology are known to be less accurate in this setting of PPI usage. The question posed is slightly new, in that the urease test studied here is not as well known as some others.

2. Are the methods appropriate and well described, and are sufficient details provided to replicate the work?
There were two biopsies for histology and these were the reference method when stained by Giemsa if the H&E section gave a doubtful result. This leaves room for some error since contaminating bacteria may appear to be H. pylori in some patients thus causing spurious “false negative” urease test results. This inaccuracy might account for a few percent error in the results.

3. Are the data sound and well controlled?
Not controlled – but comparative. The methods are appropriate to local clinical practice.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
Yes

5. Are the discussion and conclusions well balanced and adequately supported by the data?
a. The authors state that biopsies should be taken from other parts of the stomach if PPI are used. They do not have data to back this up because they did not take biopsies from the corpus. They have referred to work of others. At least they do recommend that more biopsies be taken when PPI is used. However, the histology appears superior to Urease tests here. The authors might suggest that a negative diagnosis on PPI might be backed up with a serological test which should not be affected by PPI.

b. The terminology in page 6 lines 10-11 I confusing. This needs to be clarified (at least to me). I don’t see where these numbers come from.
"The likelihood of a positive urease test with and without PPI was 3.18 and 3.59 and negative urease test with and without PPI was 0.65 and 0.35."

6. Do the title and abstract accurately convey what has been found?
Yes

7. Is the writing acceptable?
Quite well done
Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Discretionary Revisions (which the author can choose to ignore)
see item 5 above

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: Yes

Declaration of competing interests:
I have a medical company which sells a competing test in Australia. I have reviewed many papers or urease tests in the past.