Reviewer's report

Title: Low specificity of HIV-testing on sputum specimens kept at ambient temperatures for 4 to 7 days

Version: 1 Date: 3 May 2007

Reviewer: Patrick S Sullivan

Reviewer's report:

General

This is an interesting manuscript about an important subject. However, there are some issues that should be addressed in order to make future versions manuscript more transparent to readers.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. I infer that the EIA-EIA combination was the gold standard in the evaluation, but this is never explicitly stated in the text (appears as a heading in the table). Also, you should address the possibility that the QraQuick device could be more sensitive than your gold standard.

2. The issue of the split specimens is very confusing, especially since you don't explain why the specimens were split until page 15, which is after the split results are presented. The methods should come before the results in any case, but here a much clearer explanation of the reason for the split -- and why it is important to present the results separately -- should be provided.

3. On page 15, need to say which test result was given to the patient -- I assume that it was the EIA result, but should be explicit.

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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)

Page 8 -- you say that 77% specificity is not sufficient for surveillance purposes, but is there an agreed upon standard for specificity for surveillance purposes? If so, what is it?

Page 6, lines 112-114: this sentence ("The proportion ...") is very confusing.

Page 7 line 136: what does it mean that "24 specimens remained unknown"? Does that mean that you do not know what technician tested them?

Page 6: Last sentence of 1st para, lines 115-116: This sentence seems out of place

Page 21: not clear what the numbers after the clinic names mean

Page 21: The tenths place is not meaningful in a sample of 58. Please present percentages round to the whole number.

Page 21: P values do not need three significant digits. please present 2 SDs or less.

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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 whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

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