



SDI Review Form 1.6

Journal Name:	International Journal of TROPICAL DISEASE & Health
Manuscript Number:	2013_IJTDH_5966
Title of the Manuscript:	VALIDITY OF ACID-FAST SMEAR OF GASTRIC ASPIRATES FOR THE DIAGNOSIS OF CHILDHOOD PULMONARY TUBERCULOSIS AMONG HUMAN IMMUNODEFICIENCY VIRUS-INFECTED CHILDREN
Type of the Article	Original Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



SDI Review Form 1.6

PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	Method: I disagree with the authors that they have conducted a cross-sectional study. I would suggest that they call their study a diagnostic study. The inclusion criteria need to be better described – was it sufficient for inclusion that an individual met one of the inclusion criteria? Were all the included patients diagnosed with TB (those with negative microscopy and culture results on clinical grounds? If so, what case definition was used? Please clarify. It seems that only children under the age of 11 were included. Was this age also one of the inclusion criteria? Was HIV status unknown for all before inclusion and HIV testing in the study? If not, were any patients on antiretroviral therapy at the time of GA collection? Was the WHO stage of the HIV infected patients known? If so, could this be of relevance to sensitivity? Were laboratory personnel blinded to the HIV status of the patients? If not, it is possible that there could be an observer bias? (Knowing that a patient was HIV positive could lead laboratory personnel to	Thank you. I really thought diagnostic study was appropriate, but several authorities felt there was no such independent category. This category of research should be made to stand out. All included patients were suspected TB cases ("had features suggestive of TB"). This is the usual clinical habitus for bacteriologic confirmatory testing. Accuracy of bacteriologic confirmation of TB from this pool of patients by smear microscopy, relative to culture, was the objective of research. Patient selection followed routine clinical service delivery protocol of paediatric dept. of UBTH. Gastric aspirate specimen collection was reserved for suspected childhood TB cases who were could not produce quality sputum or who were sputum-negative. To subject a mother-child pair to a three-day admission for specimen collection is not an easy decision. The age range of <11 was, therefore, not a "design" but a "result". All were investigated for HIV in the course of hospitalization, utilizing hospital's PEPFAR facilities and protocols. Thanks for raising all these concerns. There was blinding. It is unusual, in our experience, to have up to more than grade II AFB smear result. The only grade II result was from a Stage IV HIV pt.



SDI Review Form 1.6

	examine the smears more thoroughly). This should also be commented on in the discussion. Could there be other sources of bias or confounding, such as difference in age and severity of disease, that could explain the higher sensitivity in HIV-infected children? The authors report that a grading system was used for microscopy. It would be interesting to know if HIV-patients also tended to have higher bacteria counts than HIV-negative. If so, this would support the authors' finding of higher sensitivity among HIV-infected. The authors need to be explicit as to the statistical tests used for statistical analysis. Results and discussion: Table 1 should be rewritten and demonstrate patient characteristics (such as age, sex and clinical findings as described under inclusion criteria) according to HIV status (HIV positive and HIV negative in two separate columns). This would indicate if also other patient characteristics than HIV could explain differences in sensitivity. Figure 1 and Table 4 are unnecessary and should be taken out. The latter also contains a mistake, I believe. Bottom right fraction should be 96/97 (not 96/106). It is sufficient to specify the significance of the differences in sensitivity and specificity in the text. Table 2 and 3. Were the acid-fast positive, culture negative individuals due to culture of NTM (rather than MTBC or were no mycobacteria cultured in these individuals?)	Comparative grading was therefore impossible. The participants characteristics and their relative distribution among the groups has been addressed in a revised table 1. Figure 1 and table 4 are off. Three AFB + Culture (-) were NTM and they occurred among HIV-infected under-2's
--	---	---



SDI Review Form 1.6

	Strengths and limitations of the study should be discussed.	
<u>Minor</u> REVISION comments	General comment: The number of decimal places for p-values should be consistent; I suggest a maximum of 3 decimal places. Use sensitivity and specificity rather than sensitivity and specificity proportion or score. PLWA should also be written in full first time in the main body of the manuscript. The same goes for TB and MTBC infection. Methodology: The study period January 2010-January 2012 is imprecise and could indicate a period anywhere between 23 and 25 months (please provide dates). What does prospectively and consecutively mean? Prospective is probably sufficient. It is unclear if two kits were used to test all individuals or if the kits used varied during the study. Were patients included in the study and subsequently diagnosed with HIV or TB also offered therapy? If not, this is a potential ethical issue. Results and discussion: Heading should be results and discussion (not discussions). It could be of interest to have smear results also presented as positive and negative predictive values (for culture positivity):	
<u>Optional/General</u> comments	The authors deserve credit for evaluating the utility of GA smears in HIV-infected children in Nigeria. In resource-poor settings, this is still an important diagnostic method.	