Reviewer’s report


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Reviewer: Sanjay Patel

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This study looks at the variability in adherence to paediatric guidelines across a large number of hospitals in Kenya. Although there is published literature on adherence with guidelines in low-income setting, there is a paucity of paediatric literature which tends to focus on HIV. Most studies tend to focus on adherence within a single hospital and few studies try to quantify the impact of both organisational and individual clinician variation. These aspects make this study unique and extremely interesting.

Major compulsory revisions

Minor essential revisions

Multi-level modelling techniques have been used to analyse the results of this study. Unfortunately, I am not in a position to comment on the validity of this analysis because of my lack of experience with this form of modelling. I would recommend that the manuscript is seen by a specialist statistician. If they agree that the results and analysis are valid, I would have no objection to the manuscript being published with minor revisions. Includes interpretation of analysis section paragraph 3:-

“The XTMELOGIT procedure in Stata version 13 for binary outcomes was used for multilevel modelling. The ICCs were calculated using the latent variable method supported by Snijders and Bosker that converts the level 1 variance from the probability scale to the logistic scale on which level 2 (clinician) and level 3 (hospital) are expressed. The standard logistic distribution has a variance #2/3=3.29 and hence this can be taken as the level 1 variance. Since level 1, 2 and 3 variances are on the logistic scale, the following formula was used to estimate ICC at different levels:

ICC hospital= variance hospital/ (variance hospital + variance clinician + 3.29)
ICC clinician and hospital = (variance clinician + variance hospital)/ (variance hospital + variance clinician + 3.29)”. I cannot comment on this.
Methods – covariate definitions. Error in the data presented “For clinician characteristics, cadre was collapsed into the main cadres in hospitals; clinical officers (62%; 180/291) and medical officers (38%; 181/291 which included 3 clinicians with specialised paediatric training).” The proportion of medical officers is 38%; 111/291.

Overall the grammar needs to be improved – the majority of sentences in the abstract and introduction need to be restructured.

**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:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

No competing interests