Author's response to reviews

Title: Utility of clinical parameters to identify HIV infection in infants below ten weeks of age in South Africa: a prospective cohort study

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Author's response to reviews: see over
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To the Editor,

Thank you for reviewing our manuscript entitled “Utility of clinical parameters to identify HIV infection in infants below ten weeks of age in South Africa”. The responses to the reviewers’ comments are listed below:

**Reviewer 1 responses:**
General: the study identifies clinical parameters to identify HIV infection in infants below ten weeks of age. The finding helps in producing efficient clinical algorithm to be used in program setups. However the result of the study should be interpreted cautiously: it was conducted in areas where the prevalence of BF is very low, the clinicians were aware of the HIV status of the infants and severely ill children were excluded. These limit significantly the application of the algorithm in setups in developing countries. The validation of the study in different setups should be highlighted boldly.

*We have further stressed these points*

Specific comments
- Abbreviations should be spelled out in first appearance eg PMTCT.
  *PMTCT has been changed to Vertical transmission programs and all abbreviations have been checked*
- The conclusion should include the term in similar setup rather than saying resource-constrained settings.
  *“resource constrained” has been changed to “similar”*
  The assertion made should consider the HIV prevalence, the selection criteria of participants (severely ill were excluded) the prevalence of breast feeding is very low (12%).
  *This has been clarified in the conclusion*
- The fourth page should start with title introduction.
  *Corrected*
- The introduction should include review of previous works and should include methodological shortcoming of the previous studies. How the current study overcome the limitations in the previous studies. The added value of the current study compared to previous similar works should be explicitly indicated.
  *We have moved some of the discussion about the prior papers into the introduction.*

**Reviewer 2:**
To develop a clinical definition for HIV infection in children has been regularly tried for more than two decades and it regularly failed. To do it for infants less than 10 weeks is really challenging and to my knowledge, as authors stated, it has never been done.

New recommendations of WHO are to treat HIV infected infants as soon their HIV status is known. But in many places early diagnosis is not available or they are many delays before the diagnosis of
infection comes back to pediatrician allowing to treat the child with HAART. A clinical algorithm giving a high probability to be infected or not and helping to decide to treat or not is important to have.

Discretionary Revisions
I have no specific comments except that
- authors should stress in the discussion that specificity is not so important. It is better to treat by excess infants and to change after the final result has been done rather not to treat and have the risk that the child could die of HIV infection. 
This has been stressed.

In the text, formula feeding should not be noted as a comorbidity. Formula feeding IS NOT a comorbidity but a rational nutritional choice for HIV exposed children that is done in all continents except Africa, because of poverty. 
Formula feeding has been listed separately to the comorbidities.

Sincerely,

Mark F Cotton, MBChB, PhD