Author's response to reviews

Title: Validation of a portable nitric oxide analyser for screening in primary ciliary dyskinesia

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Author's response to reviews: see over
**Reviewer:** Mauro Maniscalco  
**Reviewer's report:**  
Major Compulsory Revisions  
The Authors have cited the missing studies but they have not discussed the novelty of data. They should specify the aim of the study regarding the differences with the previous published data. Furthermore they must discuss them explaining the differences with the other studies and the usefulness of their findings.  
There are only two previous papers using a hand held device to measure nasal NO in PCD patients. One had 14 PCD patients and made measurements using a single exhalation silent or humming manoeuvre. The other paper (published after we submitted to this journal) used a similar method to ours in 16 PCD patients ie. aspiration of nasal air at steady flow during relaxed tidal breathing. We have added this information to the background to highlight that although not entirely novel, our study contributes to a very limited data in this area. We have added some additional information to the discussion, including increased citation of other studies, highlighting where our data is similar or differs.

**Reviewer:** Sharon Dell  
**Reviewer's report:**  
The paper is significantly improved. Thank you.  
Minor revisions:  
1. The figures do not match the legends. I think they are numbered incorrectly. There was an error with the numbering of the figures which has been corrected  
2. Figures one to three should include the sample size of each group under the group label. This information has now been added to the legends.  
3. Figure 4a and b need unit of measurement (nL/min?) The units of measurement have been added (nL/min)  
4. The authors response to the first reviewer cites the very relevant Mateos-Corral JPED 2011 paper to show that tidal breathing maneuvers can yield repeatable results in children, but they have not cited it in the manuscript. It should be cited in the manuscript to support the methods and also in the discussion section as it also shows that different diagnostic cut-offs would be needed with different breathing methods. We agree that these additions are necessary, and have added to the methods and discussion as suggested.  
5. When the others state "mouth breathing" I would assume that they mean open mouth tidal breathing, but this should be specified in the methods. The Mateos-Corral paper shows that still different cut-offs would be generated with a closed mouth tidal breathing method, which is the preferred technique of infants. You are correct, it was open mouth breathing. This detail has been added to the methods.