Author's response to reviews

Title: Computerized acoustic assessment of treatment efficacy in RSV Bronchiolitis: Nebulized Epinephrine Versus Albuterol- a double-blind study.

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Author's response to reviews: see over
Point-by-point response

Original manuscript title: Computerized acoustic assessment of treatment efficacy in RSV bronchiolitis: nebulized epinephrine versus albuterol – a double-blind study.

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Referee 1 (G. Schmalisch)

Minor points

1. The figures have been revised, with and y axes labeled.

2. The manuscript was reviewed and a number of printing errors were corrected.

Discretionary revisions

1. Page 4: "feasibility" was substituted for "efficacy and accuracy"

2. Page 8: Bonferroni correction could not be done, since these are non-parametric variables.

3. Page 10: "recent advances" was changed to "modern" (p. 9, top, p.10 bottom) and has been clarified ("mainly due to faster high-RAM computers").

4. Table 3 has been corrected according to the suggestion, with P column added.

Reviewer 2 (H. Pasterkamp)

Major points

1. We added our hypothesis at the end of the introduction (page 4).
2. We revised the background section, such as it now concentrates mainly on the need to have objective tools to measure response to therapy in RSB bronchiolitis, rather than the clinical score which is subjective (page 3).

3. The explanation for not performing a power calculation and the fact that the statistics were performed by our biostatistician, have both been added to the statistics section of the Methods.

Minor points

1. Crackle counter not validated – this was added to the results section (bottom of page 7).

2. Noise interference, exclusion of data and time required per study – this has now been added to the Methods section (page 6 and top of page 7)

Reviewer 3 (R. Davis)

Major points

1. We revised the background section, such as it now concentrates mainly on the need to have objective tools to measure response to therapy in RSV Bronchiolitis.

2. As reviewer 2 pointed out, the study was not designed to provide validation of the PulmoTrack's automatic crackle counter. As we now clarified in the last paragraph of the Background section, the study's main objective was to test the feasibility of using this noninvasive objective tool in these very young sick infants. The data consisted of 20 breaths taken sound segments that had at least 5 consecutive interference-free breaths (page 6, bottom). The manual auditory
analysis was conducted on all the data, with the Pulmonologists blinded to the
result of the computerized analysis. The number of crackles identified by the audit
was compared to the PulmoTrack's. To clarify this, it was added to the Methods
section (page 6).

3. The statistics were detailed more and Fisher's exact test added, as recommended.
The signed rank Wilcoxon test was used to compare within-group differences,
while the relationship between clinical scores and crackle or wheeze counts was
tested by Spearman correlation. The Statistical Analysis section in the Methods
was changed and clarified accordingly.

Discretionary revisions

1. The spelling of "interference" was corrected

2. BPD was changed to "bronchopulmonary dysplasia".