Author's response to reviews

Title: Risk of Cardio-Respiratory Dysfunction in Preterm Infants Placed in Car Seats: A Cross-Sectional Study

Authors:

Vallier C Ojadi (ojadiva@umdnj.edu)
Anna Petrova (petroran@umdnj.edu)
Rajeev Mehta (mehtara@umdnj.edu)
Thomas Hegyi (hegyith@umdnj.edu)

Version: 5 Date: 20 May 2005

Author’s response to reviews: see over
May 12, 2005

To the Editor

BMC

Re: Manuscript no 1281212125763714, entitled “Risk of Cardio-Respiratory Dysfunction in Preterm Infants in Car Seats: A Cross-Sectional Study”

Dear Editor,

We are in receipt of your letter dated May 12th regarding the revision required to the above-mentioned manuscript and the enclosed comments from the experts in the field who evaluated the manuscript. Please thank the reviewers for their vigorous analysis and very valuable suggestions.

We have considered the points raised and respond as follows:

Response to the Reviewer # 1 (Dr. Alistair Gunn)

The commentary states that the 3d formatting of the figure has been removed. In the figure available to me however, it has not. This is a stylistic element and as such is between the editors and the authors. However, it is commonly discouraged because it has no benefits, and makes it more difficult to compare columns.

We apologize for not including the changed figure with our last submission. The 3D formatting has been changed. Please see new figure 1.

Footer of tables 1 and 2.
"combination of any cardio-respiratory symptoms" should be "Presence of any " etc.

The change in the footers of table 1 and 2 has been made.

Methods.
give city, state/country for all equipment, e.g. the car seat, the oxford medilog etc.

This information has been added. See study procedures in the manuscript.

Results.
"there was _a_ significant "...

The change has been made as suggested.

Discussion, para 1.
should 'that is dependent on' be 'that seemed to be related to'?

This change has been made in the manuscript.

_Discussion, last para, final sentence, suggest ..."which was associated with reduced frequency of oxygen desaturation"..._

This change has also been made in the manuscript.
Response to the Reviewer # 2 (Anne Greenough)

I am unsure why the authors wish to detect a threefold difference - why is this clinically the important target to set. Their answer to my question regarding repeatability of the measurement technique isn't really giving an answer - as the authors need to quantify what is meant by one standard deviation.

1. As we mentioned in the “Introduction” of our manuscript, several studies have shown that cardio-respiratory function is compromised in 18.4% to 30.0% of preterm infants tested in a car seat\(^2,3,4,5,6\) (see manuscript and references). We assumed that it is possible that approximately 8-10 percent of preterm infants will develop cardio-respiratory symptoms in the supine position. Based on this assumption and previous publications, we calculated the sample size for this study. A sample of 42 infants allowed the detection of a thirty percent relative difference in the proportion of cardio-respiratory symptoms during placement in car seat as compared with supine position. We think that 30% increase in occurrence of cardio-respiratory symptoms in infants is clinically important. The clarification regarding the “threefold difference” is provided (see manuscript, Material and Methods).

2. In this study, we did not test the repeatability of the measurements. However, as regards the standard deviation of measurements, the manufacturer’s reports specifications for the Nellcor Pulse Oximeter (www.tycohealthcare.com) as a pulse rate SD of +/- 3 bpm if the pulse rate is between 20 and 250 bpm, and for the neonatal SpO2 a SD of +/- 3 digits if the SpO2 is between 70 and 100 (accuracies are expressed in digits as percentage points).