Author's response to reviews

Title: Revised Fenton growth chart for preterm infants

Authors:

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Author's response to reviews: see over
Response to Reviewers
We thank each of the reviewers for their helpful and insightful reviews.

Reviewer: Ian J Griffin

Reviewer’s report:
This is a timely revision of the 2003 Fenton growth chart for preterm infants. As well as updating the datasets used for preterm growth, the later parts have been smoothed into the 2006 WHO growth charts for term infants. One other significant change is the generation of separate charts for males and females. The previous charts were a significant advance on the currently available ones, and this too, seems to be an advance. Although this updates two previous publications using similar methods I’d like to see more details of the methods given here, so that it can stand alone. Also, I suspect that this may be an earlier version of the draft, than the authors intended to submit. For example, the highlighted line “the close fit between the meta-analysis and the growth of preterm infants” in the discussion looks like a reminder for the authors to say something about that there?

Response: We thank you very much for your careful review and helpful suggestions. We have described our methods in the manuscript and included a brief summary of them in the abstract, and hope that you find these satisfactory.

Major Compulsory Revisions
1. - Methods: Was summary data combined to generate the composite dataset, or were the raw data used? More information is needed on how the individual datasets were combined.
   Response: We used the summary data from the 6 studies to generate the composite data. Added the sentence “The located data that met the inclusion criteria were combined by using the weekly data for the percentiles: 3rd, 10th, 50th, 90th, and 97th, weighted by the sample sizes.

2. - Methods: Clarify the difference between “B Combine the data to produce weight intrauterine curves for each sex ...” and “C. Develop growth monitoring curves”
   Response: Part B was to develop the intrauterine curves up to 40 weeks, and Part C was about joining these curves with the WHO Growth Standard. We hope our revisions are clearer now.

3. - Results: Please add a table showing the number of subjects at each gestational age from each individual dataset, and for the total sample. Table 1: Was not present in my review copy
   Response: We apologize that our Table was not uploaded into the document. We have now included the number of subjects at each gestational age from each individual dataset as Table 2.

Minor Essential Revisions
4. - How do the current curves compare with the 2003 ones?
   Response: I have included graphic comparisons of the 2003 and the current revisions.

5. - Figures: I found the formatting of some of the figures off-putting and would have preferred larger numbers, thicker axis lines, and larger type. One axis has “gestational” misspelt. The last 2 figures are very nice.
   Response: We have improved the early figures and hope you find them satisfactory.
6. A table of the summary L, M and S values be very helpful, ideally as a table in the paper.
*Response:* We do not intend to publish the LMS values, and will consider supplying that information upon individual requests.

Discretionary Revisions
7. Discussion: How do the male and female curves compare?
*Response:* We have included a graphic comparison of the male and female curves.

**Reviewer:** Christina J Valentine
**Reviewer's report:**
The manuscript Revised Fenton Growth Curve for Preterm infants is well done and will contribute to the literature and clinical practice.
*Response:* Thank you very much for your kind comments.

**Reviewer:** Shripada Rao
**Reviewer's report:**
I congratulate the authors for undertaking this very important task of deriving updated fetal-infant growth charts. Similar to Fenton 2003 charts, these updated charts will be very useful to the clinicians. The long awaited sex specific growth charts are a significant advantage compared to the previous ones. I am glad to see that the authors have used WHO 2006 charts for the post term data because WHO charts are methodologically robust, based on breast fed babies and the study infants had optimal conditions to achieve full growth potential. In addition, free access to anyone anywhere in the world via BMC Pediatrics website makes it all the more beneficial. Hence, I am eager to see its successful publication.
*Response:* We thank you very much for your kind words, careful review, and helpful suggestions.

**Major compulsory revisions:**
1. The authors will need to update the manuscript by following the standard guidelines for reporting systematic reviews using PRISMA checklist and the flow diagrams, which can be accessed on this website: [http://www.prisma-statement.org/](http://www.prisma-statement.org/)
*Response:* Thank you for this suggestion, we have made this addition. We changed the title of the paper based on the PRISMA guidelines.

2. Introduction, paragraph 5: The authors need to add that another aim was to derive sex specific growth curves.
*Response:* Thank you, we have made this change, good suggestion.

3. In the introduction, the authors need to describe the reason why they re-scaled the chart x-axis to actual age rather than completed weeks.
*Response:* Thank you, we have made this change, good suggestion.

4. It is better to remove Google as one of the search engines because one will get 306,000 just by typing preterm growth charts in Google. It is impossible to read all such citations for suitability for inclusion/exclusion.
*Response:* Our google search was not based on the terms “preterm growth charts”, but on the terms defined in our search strategy. We used the guidance for grey literature searching of our local Librarian (YL) to search the first 5 pages and discontinue if no useful sources were found.
5. Data selection and combination: As per standard methodology for conducting systematic reviews, the authors need to describe if the search strategy, assessment of eligibility for inclusion was conducted independently by two authors to minimize bias.

Response: Yes, both authors conducted independent searches, and we agreed on the final inclusions.

The authors also need to describe if the data collection and entry into the software was verified by the second author (minimization of errors). May I suggest this very useful website which provides full details on the conduct of a systematic review.

http://www.york.ac.uk/inst/crd/pdf/Systematic_Reviews.pdf. They could focus mainly on pages 20-30 of this document.

Response: We were able to minimize both data collection and entry errors by using copy and paste functions to collect the data from the publications by computer, and we did not need to transcribe any of the data. Thank you for recommending this excellent resource.

6. Authors need to give table of included studies and their characteristics

Response: We apologize that the Table was not included in the upload, and will ensure that it is included next upload.

7. Authors need to give a flow diagram describing the study selection process. Discretionary revisions: Search of another important database “Embase” would have added further weight to the author’s systematic review. They may want to consider it for future systematic reviews.

Response: Thank you for these suggestions. We have included a flow diagram as Figure 4.

Respectfully submitted,

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