Reviewer's report

**Title:** Comparing the growth of preterm infants through the gestational period of 37 to 50 weeks with the reference fetus

**Version:** 2  **Date:** 15 November 2012

**Reviewer:** David Tudehope

**Reviewer's report:**

Major Compulsory Revisions

1. Authors previously submitted a paper on a revised Fenton growth chart for preterm infants "developed from a meta-analysis of many charts and used charts from 6 countries to prepare FIGR.." Readers need to understand the genesis of this chart and are given too little information in this paper.

   Even though it involves data from 6 countries chart is a growth reference not a growth standard and involves cross sectional birth weight data.

   Which countries? What centiles are represented on Figure 3?

   From what gestation was WHO data added?

2. Title of this paper is misleading - "reference fetus from 37 -50" weeks doesn't make sense. Surely title needs reference fetus and infant not just reference fetus as chart involves WHO data from ?40 weeks.

3. There is no table 3 submitted. Legend for figures provides insufficient description

   Figure 1&4 – centiles of FIGR curves not provided Figure 2 – why does dot curve [23-25 weeks] start at 28 weeks rather than 25 weeks? Figures 3 – once again why does dot curve start at 28 weeks if it begins 2 weeks after birth? Figure 4 – presumably red dots are NICHD and blue dashes are 3 NICUs in Canada and USA but is unclear and also unclear for 24,27 and 30 week cohorts.

Minor Essential Revisions.

1. The challenge of providing a chart to plot post-natal growth [longitudinal ] of preterm infants has also been taken up by INTERGROWTH, which is not referenced in this paper. INTERGROWTH are collecting longitudinal data of highly selected preterm infants from 23-36 weeks to plot a growth standard[prescriptive curve] . This alternative approach should be acknowledged in introduction and/or discussion.

2. It is correct to state that preterm infants 23-31 weeks gestation managed in 3 NICUs in Canada and USA had early nutritional support with TPN on day 1 of life. However, later nutritional support or aggressive nutritional support [Ziegler’s terminology] was lacking e g minimal enteral feeding starting on days 2.7-7.4
days, enteral feeds 6.6-16.7 days and full feeds 17-34 days are not consistent with current nutritional standards. Data from table 2 on Fortified breast milk are unclear. Does this mean % of babies who received any fortified breast milk[mothers or donor]or the % of breastmilk fed infants who’s breast milk was fortified?

3Data on size for gestational age [only SGA] based on FIGR are included on table 4 [not referenced]


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**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.