Reviewer’s report

Title: Assessing fetal growth impairments based on family data - A tool to identify babies at risk?

Version: 1 Date: 14 May 2007

Reviewer: Waldemar (Wally) Carlo

Reviewer’s report:

General
This study is innovative as it shows that infants with birth weight lower than predicted based on gestational age and the birth weight of the previous siblings.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
The study includes data collected over a 23 year span over which there were many improvements in perinatal care (e.g. surfactant) that may have affected survival differently among various birth weight groups and thus, result in a dissociation of the associations reported here. It is not shown if the associations persist if data are analyzed for various periods or from a period after newer therapies were in place. If the additional data analysis is not possible, this must be addressed as a major limitation.

Infants with congenital anomalies or congenital infections that lead to lower birth weight and/or growth restriction were not excluded from the data on the second born. Many of these infants have an increased risk for mortality. It would be ideal to exclude infants with these pathological conditions to determine the real association between restriction of constitutional growth and mortality. Alternatively, if the analysis is not possible, acknowledgement of this limitation is important.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
Although the association of birth weight of the second child to birth weight of the first appears to be evident, the association is not present in the second born term infant when the first sibling’s weight was below 2.5 kg (Figure 1). The lack of association is important as this subgroup of second born encompasses the majority of the infants. This limitation needs to be addressed explicitly.

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Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after discretionary revisions

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

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.