Reviewer's report

Title: Association between gestational age at birth, antenatal corticosteroids, and outcomes at 5 years: Multiple Courses of Antenatal Corticosteroids for Preterm Birth Study at 5 years of age (MACS-5)

Version: 2 Date: 20 May 2014

Reviewer: Sarah Stock

Reviewer's report:

The study was a secondary analysis of the 5 year follow-up of the MACS RCT (Multiple Courses of Antenatal Corticosteroids for Preterm Birth).

The objective was to determine the association between gestational ages at birth in children exposed to single and multiple courses of antenatal corticosteroids, and outcome at 5 years of age. This was well defined. The primary outcome was a composite of death or survival with a disability. The methods seem to be appropriate and are adequately described and the data appear sound.

The discussion and conclusions are balanced and supported by the data, and the limitations of the work are acknowledged.

Previous trial publications are referenced.

The title and abstract convey the findings, and the writing is generally clear and easy to follow. The findings are of interest.

Major Compulsory Revisions
None

Minor Essential Revisions
1. Legends for the tables would be helpful.

2. In the table 3 groups are labeled “multiple” and “single”. Could some other word be added eg steroids or ACS, as otherwise they may be confused with single and multiple pregnancy groups.

3. p values would be useful in Table 3 to help the reader determine differences between the single/multiple group.

Discretionary Revisions
1. The sentence “Future research should be focused on not whether additional courses of ACS therapy should be given but to ensure that a single course of optimal ACS therapy is given at the most beneficial and optimal time for the fetus. “ is confusing and should be reworded for clarity.

Level of interest: An article of outstanding merit and interest in its field
Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests