Reviewer's report

Title: Predicting developmental outcomes in premature infants by term equivalent MRI: systematic review and meta-analysis

Version: 2 Date: 17 April 2015

Reviewer: Sudhin Thayyil

Reviewer's report:

This is an important and well conducted systematic review
1. Is the question posed by the authors new and well defined? _YES
2. Are the methods appropriate and well described, and are sufficient details provided to replicate the work? YES
3. Are the data sound and well controlled? YES
4. Do the figures appear to be genuine, i.e. without evidence of manipulation? YES
5. Does the manuscript adhere to the relevant standards for reporting and data deposition? YES
6. Are the discussion and conclusions well balanced and adequately supported by the data? - Should have a more balanced discussion

The data suggests that presence of moderate/severe WM injury has a very good positive likelihood ratio, and absence of any WM/brain injury has a very good negative likelihood ratio, certainly more than clinical or any other imaging modes that we use now for preterm babies. Thus this data supports use of MRI at term for preterm babies, but of course whether this alters clinical management is a different question, however, accurate the test is. This was not the aim of this review. Please include this in the discussion.

Secondly, the review does not include any quantitative biomarkers – like MR spectroscopy and DTI/NODDI and it is likely that the accuracy of MR biomarkers will continue to improve with increasing use of these techniques. This needs to be mentioned in the discussion

1. 7. Do the title and abstract accurately convey what has been found? YES
8. Is the writing acceptable? YES