Reviewer’s report

Title: Umbilical cord bilirubin as a predictor of neonatal jaundice: a retrospective cohort study

Version: 0 Date: 17 Apr 2017

Reviewer: Deepak Chawla

Reviewer's report:

This study describes the diagnostic ability of cord bilirubin in predicting neonatal hyperbilirubinemia. With a retrospective design, authors have analyzed cord bilirubin values and its relationship with significant neonatal jaundice. I have following comments on the study.

1. Diagnostic performance of a test needs to be studied in perspective of prior probability of the diagnosis, especially with existing work up of the patients. From this point of view one needs to know positive and negative likelihood ratios of the proposed cut-offs. What is prior probability of significant jaundice in neonates born to mothers with O blood group and how this probability is altered with information about cord bilirubin. Secondly, if conducting DAT is usual practice in neonates whose mothers are of blood group O, how adding cord bilirubin test changes the probability of jaundice?

2. Of the neonates born during the study period, cord bilirubin is available only for about half neonates (2128/4069). What is the reason of this? Decision of measuring the cord bilirubin may be related to its perceived utility (e.g. if mother is O+) directly related to risk of jaundice or other perinatal event like fetal distress which may be indirectly related to risk of jaundice.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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