Reviewer's report

Title: Different levels of associations between medical co-morbidities and preterm birth outcomes among racial/ethnic women enrolled in Medicaid 2014-2015: Retrospective Analysis

Version: 1 Date: 13 Nov 2019

Reviewer: Guillaume Ducarme

Reviewer's report:

The authors reported a retrospective analysis of data from the Medicaid core dataset from January 1, 2014, and 18 September 30, 2015, including 457,200 pregnant women. They have examined the different levels of association between preterm birth and major medical co-morbidities that were shown to be associated with preterm birth (smoking, drug dependence, alcohol dependence, diabetes, and hypertension) among various racial/ethnic women enrolled in Medicaid.

They concluded that "The higher preterm birth rate in black women remained after controlled for age, prenatal visit counts, and medical comorbidities associated with an elevated risk of preterm birth. The associations of medical co-morbidities and preterm births varied across racial and ethnic groups".

This retrospective study is very interesting, well-written and includes a large sample of pregnant women enrolled in Medicaid in USA. A high rate of preterm birth and hypertension was observed in this cohort. No information was noted concerning important variable about the subject: spontaneous or induced preterm birth, late-preterm or early-term birth, mode of delivery…

The authors should modulate the conclusions and clearly note that results were observed in a very biased population (pregnant women enrolled in Medicaid in USA) and no other conclusion should be done regarding association of race/ethnic, maternal co-morbidities and preterm birth.

Minor comments:

- References in the text should be noted as the journal recommendations to authors
- CI95% should be added in the abstract
- The authors should explain the delay between Medicaid data set (2014-2015) and the submission of the manuscript
- Table 1: the sample size of each box should be added
- Table 2: I do not understand the line concerning the age?!?
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.

Yes

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

No

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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