Reviewer's report

Title: Outcomes of non-vertex second twins, following vertex vaginal delivery of first twin: a secondary analysis of the WHO Global Survey on Maternal and Perinatal Health

Version: 1 Date: 20 November 2013

Reviewer: Lillian Skibsted

Reviewer's report:

This paper describes outcomes in twin deliveries in low and medium income countries. The population studied is very diverse including 24 countries contributing form 7-150 twin pregnancies where the first born twin was a delivered vaginally in the vertex presentation. The second twin was born non-vertex in 26% of cases.

The paper is predominantly descriptive and despite the high perinatal mortality in twin births the conclusion is nothing needs to be done as the outcomes are equally poor?

I lack information on whether WHO has a strategy for twin delivery or if this study is part of a future strategy.

I wonder on the capacity of any of these settings to perform ultrasound scan.

Also interesting would be to know the capacity of NICU in the hospitals studied.

I wonder if it was known before delivery that the women would be delivering twins?

The stillborn rate and perinatal mortality are very high. If this is worse than in singletons this should be discussed.

Twins are routinely delivered no later than week 38. But it would seem that many of the twins were delivered after than that and this might influence stillbirth rate.

The Caesarean rate is very low – any comment on that?

The only outcome presented as significant is a lower Apgar <7 at 5 mins

Was there any difference between the continents?

I wonder what the take home message is from this paper.

Should prenatal care be improved and how, to better plan twin births?

Should Caesarean rates be higher?

Should twin pregnancies not be allowed to go past week 38?

Should stillbirth rates be decreased?

Should WHO have a strategy for twin births?

Minor comments
The citation of higher twinning on page 6 bottom and 14 top, is only true for Africa.
Although the chorionicity was not capture (page 8) an analysis of discordant sex twins might have given some information?
Table 2 should be in text top page 11
Why is the perinatal laceration rate discussed, when AOR could not be calculated (page 11).
The comment on the one maternal death is irrelevant (page 11)
Last sentence on page 11 bottom 12 top is strange. If you among almost 300 000 births cannot find anything interesting it is not worth mentioning?
I wonder if you gave every women having Caesarian a 3-4 degree perineal laceration would lead to a “significant” finding. Probably not so the discussion lower bottom of page 12 is irrelevant.
Are twins complicated cases page 13 top?
Page 13 Rossi. I wonder why the neonatal mortality described here is not used to compare to the rates in the low and middle income countries.

**Level of interest:** An article of limited interest

**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’