Reviewer's report

Title: Does advanced maternal age confer a survival advantage to infants born at early gestation?

Version: 1 Date: 18 January 2013

Reviewer: Gyula Richárd Nagy

Reviewer's report:

Authors examined the effect of maternal age on gestational age-specific perinatal mortality, because recent studies have shown lower neonatal mortality among older mothers who delivered preterm. They used data of singleton births in the United States, 2003-2005, between mothers aged #35 vs. 20-29 years. They compared the traditional and fetus-at-risk models. They found that although a prognostic risk of neonatal death among newborns at early gestation is lower among older mothers (traditional model), form a causal perspective older women have a higher risk of fetal and neonatal death at all gestational ages as compared with younger mothers (fetus-at-risk model).

The question posed by the authors is well defined. The used methods are appropriate and well described. Data represent sound work. The discussion and conclusions are well balanced; the limitations of the work are stated; the writing is acceptable.

Major Compulsory Revisions

- Methods 79th paragraph: please clarify why you use the extended definition of perinatal death. Early neonatal mortality refers to a death of a live-born newborn within the first seven days of life, while late neonatal mortality covers the time after 7 days until before 28 days. The sum of these two represents the neonatal mortality. According to the definition used in Europe perinatal mortality include only the early neonatal mortality. Perinatal mortality is defined by WHO as weight specific (# 1000 g) fetal deaths and early neonatal deaths per 1000 births (live births + stillbirths). This journal has readers worldwide. Any research that is reported is obscured by country-specific definitions of perinatal mortality.

- What is the reason why Figures 1 and 2 and 3 are showing data from the 28th gestational week only? (Study population included all infants born between 22 and 43 weeks of gestation.)

Minor Essential Revisions

- Methods 71st paragraph: please define it clearly to the reader what you mean under clinical estimate of gestation at birth, as you did in Discussion 204th paragraph.

Discretionary Revisions
- Discussion 209th- 213th paragraph: please rephrase these two sentences. Write it down why fetus-at-risk model reflects an appreciation of latent periods, concentrating on especially from an epidemiologic standpoint.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.