Reviewer's report

Title: Amniotic fluid embolism incidence, risk factors and outcomes: a review and recommendations

Version: 1 Date: 26 August 2011

Reviewer: Shali Mazaki-Tovi

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The aim of the study was to determine incidence, risk factors and outcomes of amniotic fluid embolism (AFE) and to investigate whether any variation identified could be ascribed to methodological differences between the studies. The available data sources on the incidence of AFE in Australia, Canada, the Netherlands, the United Kingdom and the USA were investigated. Data regarding the risk factors and outcomes of AFE were also reviewed (where information was available). The authors reported that the incidence of AFE ranged from 1.9 cases per 100 000 maternities (UK) to 6.1 per 100 000 maternities (Australia). The lowest incidence rates were obtained through validated case identification (range 1.9-2.5 cases per 100 000); rates obtained from retrospective analysis of population discharge databases were significantly higher (range 5.5-6.1 per 100 000). Older maternal age and induction of labour were consistently associated with AFE. The authors concluded that comparisons of AFE incidence estimates should be restricted to studies using similar methodology and that comparisons of AFE incidence between and within countries would be facilitated by development of an agreed case definition. The authors recommended that groups conducting population-based studies regarding AFE should develop an agreed strategy to allow combined analysis of data and those future specific studies on AFE should aim to collect information on management and longer-term outcomes for both mothers and infants.

The manuscript is interesting and well-written. However the major weakness of the study for the BMC Pregnancy and Childbirth is lack of originality. The new information provided by this manuscript is very limited.

Additional major concern is the heterogeneity in the databases, definitions of AFE and the inconsistency in the availability of information in the datasets used in this study. These limitations along with the rarity of AFE led to conclusions and recommendations that have limited clinical value and a marginal contribution to the study of this important condition.

Level of interest: An article of limited interest

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'