Reviewer's report

Title: Morphine for elective endotracheal intubation in neonates: a randomized trial

Version: Date: 3 July 2004

Reviewer: Vibhuti Shah

Reviewer's report:

General

Summary:

In this randomized trial the investigators planned to assess the efficacy of morphine in achieving better intubation conditions and success while maintaining physiological stability. Their results demonstrate that morphine was in fact not effective and that for most outcomes infants in the morphine group fared worse.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Minor/editorial changes:

1) Page 1: Change to Capital “P” for professor and pharmacist, “N” and “S” for nurse and specialist.
2) Page 8: Line 4 change thus to they.
Page 9: 2nd paragraph, information on blood pressure and bradycardia can be moved to paragraph 1 to give readers information on physiological outcomes together.

Discretionary Revisions (which the author can choose to ignore)

Discretionary revisions:

1) Methods Section:

a) The investigators state that they plan to study eligible infants of all gestations admitted to their institution, however in line 3, page 4 they state that families were approached for consent if their infants were less than 30 weeks gestation, already ventilated etc. Can they clarify who were approached for consent as in Table 1 (Baseline characteristics) the interquartile range for gestation in the morphine group is (26, 33 weeks)
b) Is it a policy at their institution to change tubes after 10 days even if the infant is stable on ventilation?
c) The investigators used morphine in a dose of 200 µg/kg IV for the study. They need to justify the use of this dose as in most units to relieve procedural related pain we would use a dose of 100 µg/kg IV for bolus administration. In addition, did they collect information of the ventilatory parameters for the next 12-24 hours to see whether this dose caused respiratory depression?
d) The authors state that after administration of the study medication intubation was performed 5 minutes later. Were they able to maintain physiological stability in infants who did not have an endotracheal tube in situ?

e) Sample size: This is a major drawback of the study as the investigators based their sample size on outcome which was based on experience. This is the least level of evidence based on The Canadian Guide to Clinical Preventive Health Care, Health Canada, 1998. The authors do acknowledge this issue in the Discussion section.

2) Results Section:
   a) Page 8, Line 6: The investigators state the # of infants who experienced some degree of severe hypoxemia. Can they quantify this outcome?
   b) For all the outcomes, the group that received morphine had the worst outcomes. How do the authors explain this?

3) The manuscript has no abstract.

4) In contrast to this study, the study by Oei et al 2002 evaluating the use of morphine, atropine and suxamethonium showed significant beneficial effect in reducing the time and ease of intubation. The authors of this manuscript do not really postulate the reason why morphine administration only was not effective.

What next?: Accept after discretionary revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I am interested in this area and have conducted a systematic review on this topic.