

APNOEA AND BRADYCARDIA

Supporting information

This guideline has been produced with reference to the following:

NICE. Specialist neonatal respiratory care for babies born preterm. 2019. London. NICE

<https://www.nice.org.uk/guidance/ng124>

Caffeine citrate is effective treatment for apnoea and bradycardia?

A Cochrane systematic review of 6 trials (Henderson-Smart, 2010 i) reported on the effect of methylxanthine in the treatment of apnoea (three trials of theophylline and three trials of caffeine). Five trials that enrolled a total of 192 preterm infants with apnoea evaluated short term outcomes; in these studies, methylxanthine therapy led to a reduction in apnoea and use of IPPV in the first two to seven days. The post-hoc analysis of the large CAP Trial comparing caffeine to control in a subgroup of infants being treated for apnoea reported significantly reduced rates of PDA ligation; postmenstrual age at last oxygen treatment, last endotracheal tube use, last positive pressure ventilation; and reduced chronic lung disease at 36 weeks. The authors concluded that caffeine should be the treatment of choice in this condition, and confirmed this in a separate review of 5 trials in 108 infants (Henderson-Smart, 2010 ii).

Further sub-group analysis of the CAP trial (Henderson-Smart, 2010iii) has, however, concluded that “The results of this review do not support the use of prophylactic caffeine for preterm infants at risk of apnoea.”

Henderson-Smart DJ, De Paoli AG. Methylxanthine treatment for apnoea in preterm infants. Cochrane Database of Systematic Reviews 2010, Issue 12. Art. No.: CD000140

<http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD000140.pub2/full>

Henderson-Smart DJ, Steer PA. Caffeine versus theophylline for apnea in preterm infants. Cochrane Database of Systematic Reviews 2010, Issue 1. Art. No.: CD000273

<http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD000273.pub2/full>

Henderson-Smart DJ, De Paoli AG. Prophylactic methylxanthine for prevention of apnoea in preterm infants. Cochrane Database of Systematic Reviews 2010, Issue 12. Art. No.: CD000432

<http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD000432.pub2/full>

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