

AN AUDIT OF MANAGEMENT OF RESPIRATORY DISTRESS SYNDROME IN THE CONTEXT OF THE 2007 EUROPEAN CONSENSUS GUIDELINES

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Background and aims: To audit compliance and variation in management of neonatal respiratory distress syndrome (RDS) in an era post publication of the 2007 European Consensus Guidelines.

Methodology: Retrospective review of inborn preterms less than (<) 37 weeks with RDS for the period from January 1st 2008 to December 31st 2008.

Results: Of 197 infants, 29(14.72%) infants were < 27 weeks, 31(15.74%) between 27 to < 30 weeks, 91(46.19%) between 30 to < 34 weeks, and 46(23.35%) between 34 to < 37 weeks. All infants < 27 weeks received surfactant, administered before 15mins in 28 of 29 infants. 80.65% infants in the 27 to < 30 weeks age group received surfactant, in comparison to 37.36% of infants between 30 to < 34 weeks, and 15.22% infants between 34 to < 37 weeks. Prophylactic surfactant was administered in 58% of infants between 27 to < 30 weeks age group. This did not correlate with the use or non-use of prenatal steroids. Only 1 of 29 infants < 27 weeks was immediately extubated post-surfactant. Timing of surfactant re-dosing was variable and initiated at a higher mean FiO₂ 66% and alveolar-arterial ratio 0.14 in prophylaxed infants < 27 weeks compared to rescue/re-dosing surfactant at mean FiO₂ 48% in infants between 27 to < 30 weeks.

Conclusions: Overall compliance was achieved in prophylactic surfactant administration in infants < 27 weeks. For babies more than 27 weeks, significant variation was demonstrated in management strategies. This practice variation prompts generation of a unit policy of when to intervene with progression of RDS.