Hot topics from the web

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Neonatal-talk (www.infantgrapevine.co.uk) and NICU-NET (www.neonatology.org/nicu-net/join.html) are two of the many websites devoted to the exchange of information between staff involved in the care of neonates and infants, and the following are just a few of the new and on-going topics discussed. The opinions expressed do not claim to be evidence-based but will hopefully promote further discussion.

Repeated doses of antenatal steroids

NICU-NET

A questioner from Turkey asked whether other units were giving repeated doses of steroids to mothers who 'threatened' labour below 34 weeks' gestation, but did not deliver. He was asking whether one dose was enough to protect the unborn baby's lungs whilst avoiding a negative effect on the brain. The replies seem to indicate that most units give betamethasone – two doses 24 hours apart. One unit said they gave an additional single dose if delivery had not taken place within four weeks. But a respondee from Jordan administers only one dose – further doses were deemed unnecessary as it was thought that the first dose matures the lungs. Controversy surrounds the question of whether steroids harm the brain cells of the developing fetus, and also whether betamethasone is less harmful than dexamethasone.

Comment

A single course of antenatal corticosteroids is standard treatment for women at risk of preterm delivery before 34 weeks' gestation[1]. Betamethasone is preferred over dexamethasone, as it appears to be more effective at reducing the incidence of respiratory distress syndrome, periventricular leucomalacia and neonatal death[2,3]. Repeated courses of antenatal steroids may be associated with a further reduction in the incidence of respiratory distress syndrome[4], but there are significant concerns regarding the effect of additional steroids on fetal growth and neuronal development, such that repeated courses cannot currently be justified[1,5]. The results of long term follow-up studies of infants exposed to multiple versus single courses of antenatal steroids within randomised controlled trials are awaited.

1. **Roberts D., Dalziel S.** Antenatal corticosteroids for accelerating fetal lung maturation for women at risk of preterm birth. *Cochrane Database of Systematic Reviews* 2006; Issue 3. Art. No.: CD004454.
2. **Jobe A.H., Soll R.F.** Choice and dose of corticosteroid for antenatal treatments. *Am J Obstet Gynecol* 2004; **190**: 878-81.
3. **Baud O., Foix-L'Helias L., Kaminski M. et al.** Antenatal glucocorticoid treatment and cystic periventricular leucomalacia in very premature infants. *N Engl J Med* 1999; **341**: 1190-96.
4. **Crowther C.A., Haslam R.R., Hiller J.E. et al.** Neonatal respiratory distress syndrome after repeat exposure to antenatal corticosteroids: A randomized controlled trial. *Lancet* 2006; **367**: 1913-19.
5. **Whitelaw A., Thoresen M.** Antenatal steroids and developing brain. *Arch Dis Child Fetal Neonatal Ed* 2000; **83**: F154-57.

Warming milk

neonatal-talk

A question from the USA prompted a discussion about how milk (formula or EBM) was warmed before use. Units from Sweden and America used warm/hot tap water and heated the milk slowly. A unit in Switzerland put bottles and syringes in a 'special' container of water, the temperature of which often reached over 37°C so the staff had to check the temperature of the milk before feeds. One unit had a special hot tap at the correct temperature, but prior to this had been heating water in a microwave. This proved too great a temptation for some nurses who 'zapped' the bottles in there! Another unit had a 'special container' so that bottles and syringes were not contaminated with tap water. Most units who responded gave pre-packed formula at room temperature.

Co-bedding of multiples

neonatal-talk

Once a popular modality for twins and triplets, a nurse from Ohio wanted to know what other NICUs were doing/advising parents to do at home with regard to co-bedding. The question was in response to the renewed concern about sudden infant death syndrome SIDS. It would appear that this is now a very controversial subject.

Replies from units regarding co-bedding included:

- not practised and advise parents only to do it for short periods whilst the babies are being observed
- practised, but only if no IV fluids are being used
- offer the modality to parents if all agree to it
- tell parents there is little data available and much controversy
- advise not safe to sleep with adults or another infant or child for fear of overheating and entanglement in clothing.

Comment

There are no robust data to guide practice with regard to co-sleeping of twins or higher-order multiples. There is some preliminary evidence that co-sleeping on the neonatal unit may reduce the incidence of central apnoea[1], but population-based studies show that infants sharing a bed at home with other children (not necessarily of the same age) are at increased risk of SIDS[2]. Parents should be aware of the lack of evidence to support co-bedding at home, and until such evidence is available it may be safer to put multiples to sleep in separate cots at home.

1. **Touch S.M., Epstein M.L., Pohl C.A. et al.** The impact of cobedding on sleep patterns in preterm twins. *Clin Pediatr* 2002; **41**: 425-431.
2. **American Academy of Pediatrics.** Task Force on sudden infant death syndrome. The changing concept of sudden infant death syndrome: Diagnostic coding shifts, controversies regarding the sleeping environment, and new variables to consider in reducing risk. *Pediatrics* 2005; **116**: 1245-55.