

Hot topics from the web

Compiled by Stevie Boyd BSc(Hons) RGN, RSCN

NICU NET www.neonatology.org/nicu-net/join.html and **neonatal-talk** www.infantgrapevine.co.uk continue to go from strength to strength and are just two of the websites covering neonates and paediatrics. Below is a summary of just a few of the topics under discussion in the last few weeks. Please be aware that these are just opinions and are not necessarily evidence-based.



Gentamicin levels

NICU-NET

As this drug causes both ototoxicity and renal toxicity, it is usually recommended that the therapeutic range is checked by obtaining trough (30 minutes before administration of the second or third dose) and peak (30-60 minutes after administration) levels in the blood, and adjusting the dose accordingly. However, a question was raised about what units were doing as Neofax® stated that levels were not necessary in the first week of life. This prompted a barrage of replies concerned with, particularly, 'micro-premies', whose low urine output may increase the risk of reaching toxic levels quickly.

One unit in Indiana had no protocols for levels, and only did them on infants who were treated with gentamicin for more than the 48-72 hour 'rule out sepsis' period; and another unit had saved 'thousands of dollars' by not doing levels on stable babies who received the drug for 48-72 hours, and there were no renal/hearing side effects.

Most units appear to do levels, and the co-author of Neofax® responded by saying that the latest edition recommends measuring serum levels when treating for more than 48 hours.

Noise-development care

NICU-NET

A question was raised about how staff and parents were educated to keep noise to a minimum in the NICU. A variety of suggestions were mooted:

- Staff wear 'sshhhh' badges
- Colourful posters displayed throughout unit
- A recording of 'half an hour in the NICU'

played at staff meetings – amazing how loud everyday conversations, buzzing and beeping can sound

- Prizes given to nurses in the quietest areas
- Covering incubators and isolettes to absorb noise and dimming unnecessary lights when parents or staff are not interacting with individual babies – for at least one hour in eight and at night
- 'Noise lights' in each area that light up green (OK), yellow or red (too loud) in response to noise. However, not all units liked these, or thought that they were particularly effective.

Aspiration of naso/orogastric tubes

neonatal-talk

A complicated discussion followed a question regarding what size syringes should be used for the aspiration of naso-/oro-gastric tubes in neonates. A variety of sizes were being used from 2-20mL. Readers were familiar with the concept that when injecting fluid, the smaller the syringe being used the greater the pressure generated and some believed that the same was true when aspirating i.e. a smaller syringe is more traumatic. However in fact the reverse is true.

A letter from the manager of technical services at a tube manufacturer explained it thus. When injecting and producing a 'positive' pressure, using the same force, a 20mL syringe will generate a pressure of 258mmHg, whilst the 2.5mL syringe will generate 1225mmHg. When aspirating, the calculations are completely different. By using the same rationale the vacuum created by the 20-mL syringe is eight times greater than that created by the 2.5mL syringe. So a smaller syringe is less

traumatic. Obviously the size of the tubing will also have an effect.

Near-term infants

NICU-NET

Units differ with their admission criteria for infants of 34-36 weeks' gestation. Some admit them to the SCBU/NICU until they can prove they can 'behave' like full-term babies. The weight at which they are admitted to NICU ranges from 1800-2250g. One unit always admits babies born by caesarean section as they find they often need ventilating at 12-18 hours of life.

Some units give these babies the benefit of the doubt, board them with their mothers (in either postnatal ward or transitional care) and observe carefully – particularly for respiratory/feeding problems and jaundice, and if necessary admit them to the NICU sooner rather than later. Some units had a specific care-plan for these babies, and a NICU nurse did a round each shift.

Saline use during endotracheal suctioning

NICU-NET

With the advent of super-efficient humidity within incubators, the instillation of saline prior to endotracheal suctioning appears to have gone out of vogue. However, a question to NICU-NET prompted replies that showed that this was not always the case. Some units still use saline routinely, others have no particular policy, whilst one respondee's unit only use it in cases of extreme secretions. This practice is based on the 'policy of several NICUs' in the Chicago area. Another unit use saline only to rinse the in-line suction equipment.