How often do nasogastric tubes need changing routinely and why?

Only two papers addressing this question were identified. The first (Rogahn, 1998) commented that no other previously published articles on the subject had been found. The author carried out a survey of 14 NICUs with 10 or more ventilators to establish their current practice on changing nasogastric tubes and whether or not this was evidence-based. Practice varied from changing the tubes daily to weekly (median 3 days), and was based on experience rather than evidence in all cases.

The second paper (Mears, 2001) observed that little had changed since the publication of the previous paper in 1998. The author surveyed 36 neonatal units in the Thames region and found that, despite her own unit changing the tubes at 48 hour intervals, 64% of those surveyed changed them at 4-7 days, with no reported complications.

The author also contacted the maker of the tubes used in her own unit (Vygon UK Ltd) for advice. This was that tubes may be safely left in situ for up to seven days, after which the integrity of the PVC used in their manufacture could not be guaranteed.

The author’s unit conducted an audit on the basis of this information and altered the frequency of tube change from 48 hours to 5 days, with some tubes being left in situ for up to 7 days if an infant was deemed too unwell to tolerate removal. A re-audit was performed 6 months after completion of the original study, which confirmed that leaving the tubes in situ for up to 7 days was not associated with any recorded adverse effects.

Mears M. Changing nasogastric tubes in the sick and preterm infant: a help or a hindrance? J Neonatal Nurs 2001;7:202-6


Evidence Level: V

Does lingual sucrose reduce pain response to tube insertion?

A small randomised trial in 20 stable preterm infants sampled on 51 occasions (McCullough, 2008) concluded that lingual 24% sucrose (compared to water placebo) administered 2 min before tube insertion reduced pain response. Infants who received sucrose demonstrated a significantly lower Neonatal Facial Coding Score (median 1 (range 0-4) vs 3 (0-4), p=0.055).


Evidence Level: II

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