A.8 FAST AND SLOW ADVANCEMENT OF FEEDING

Recommendation and remarks

RECOMMENDATION A.8 (UPDATED)

In preterm or low-birth-weight (LBW) infants, including very preterm (< 32 weeks' gestation) or very LBW (< 1.5 kg) infants, who need to be fed by an alternative feeding method to breastfeeding (e.g. gastric tube feeding or cup feeding), feed volumes can be increased by up to 30 ml/kg per day. *(Conditional recommendation, moderate-certainty evidence)*

Remarks

- The recommendation is conditional on shared decision-making with parents; this includes informing parents about the benefits and risks and the need for further research.
- The GDG noted that the trials enrolled infants immediately after birth (i.e. day 1 – within 24 hours of birth) so results are generalizable to very early feeding of LBW infants from this time.
- All trials excluded babies with congenital anomalies and birth asphyxia, so careful consideration is needed in applying these recommendations to infants with these conditions. Feed advancement should be based on clinical judgement for these infants.
- All trials compared fast advancement (increments of 30–40 ml/kg per day) with slow advancement (increments of 15–25 ml/kg per day). So the GDG took the conservative value of 30 ml/kg per day as the threshold for fast feed advancement. This value is also consistent with many national guidelines.
- All studies were in hospitalized infants, so the GDG could not make a recommendation on feeding outside the hospital.
- The GDG did not make separate recommendations for babies fed formula milk versus human milk as there was insufficient evidence (only one trial gave formula as the sole diet while the remainder gave human milk only or a mix of human milk and formula).
- The GDG considered that advancement should continue until full maintenance feed volumes are reached. These volumes should be based on local guidelines.
- The GDG noted that further research is needed to understand the neurodevelopmental effects of fast feed advancement.

Background and definitions

There is substantial variation in the definitions of fast and slow advancement of enteral feeding volumes for preterm and LBW babies in the first weeks after birth. Advancement increments commonly vary between 10 and 40 ml/kg per day *(93,94)*. Up to the 1990s, the standard of care was a conservative ("slow rate") approach because of concerns about feed intolerance (e.g. gagging, vomiting and apnoea post-feed) and necrotizing enterocolitis *(56)*. In 2011, WHO recommended that feeds could be advanced by up to 30 ml/kg per day with careful monitoring for feed intolerance in infants weighing under 1.5 kg *(19)*. However, there have been new studies published since that time *(95)*.