



## Nutrition

# Effective implementation of early parenteral feeding

Koletzko B, Fewtrell MS, Domellöf M, Embleton ND, Gruszfeld D, McNulty A, Lapillonne A, Szitanyi P

## Statement of the standard

In very preterm infants/very low birthweight infants, parenteral nutrition should start on the first day after birth, usually using standard solutions, and should continue until sufficient enteral feeding is established.



### For parents and family

- Parents are informed by healthcare professionals about the benefits of early initiation of parenteral nutrition (PN).



### For healthcare professionals

- A unit guideline on infant nutrition, including PN, is adhered to by all healthcare professionals.
- PN is commenced on the first day, soon after admission.
- Training on infant nutrition, including the importance of nutrient requirements and early PN, is attended by all healthcare professionals working in the NICU.
- PN is carried out in consultation with a specialised nutrition support team.



### For neonatal unit

- A unit guideline on infant nutrition, including PN, is available and regularly updated.
- The availability of central (or peripheral) venous access is ensured.

## Benefits

Short-term benefits:

- Reduced time of postnatal interruption of nutrient supply and negative nitrogen balance
- Reduced accumulation of nutrient deficits and growth faltering
- Facilitated gradual introduction and advancement of enteral feeds
- Reduced hypophosphataemia and metabolic acidosis
- Reduced risk of prescription errors

Long-term benefits:

- Possible improved growth and development with optimal provision of nutrients



### For hospital

- Training on infant nutrition, including the importance of nutrient requirements and early PN, is ensured.
- Standardised PN solutions and lipid emulsions are available 24 hours per day 7 days a week, either from the pharmacy or via the use of stored bags kept in the neonatal unit.
- A standardised procedure that ensures safe compounding practices and safe delivery of PN is established.



### For health service

- A national guideline on infant nutrition, including PN, is available and regularly updated.

