

Nutritional Management of Newborn Infants: Practical Guidelines

PICOT Question: What is optimal nutrition for newborn infants?

CMH is within guidelines for nutritional management of newborns.

Search strategy implemented: CMH&C OVID

Search outcome: This is a meta-analysis. Multiple studies were researched for this article.

Synthesis of relevant studies:

Author, date, country, and industry of funding	Patient Group	Level of Evidence (Oxford) / Strength of Evidence (GRADE)	Research design	Significant results	Limitations
<u>Nutritional Management of Newborn Infants: Practical Guidelines</u> Ben, Xiao-Ming World Journal of Gastroenterology, October, 2008:114 (40):6133-6139	Premature to term newborn infants	3	Summary of current research progress in the nutritional management of newborn infants. Searches of MEDLINE, Cochrane Central Register of Controlled Trials (The Cochrane Library, Issue 3, 2007), abstracts and conference	-Minimum protein content of 1.7 gm/100 kcal and maximum protein content of 3.4 gm/100 kcal in infant formulas is recommended. -There is inadequate information that adding fatty acids AA and DHA will result in improved infant vision or cognitive abilities. FDA expert panel will revisit this field in the year ~2013 when more data from larger studies are available. -The available data are insufficient at present to establish a minimum or	"Non-healthy" preterm and term infant nutrition needs are not fully addressed.

			<p>proceedings, and references from relevant publications in the English language.</p>	<p>maximum level of oligosaccharides in formula. Formulas are on the market now with oligosaccharides.</p> <ul style="list-style-type: none"> -HMF is indicated in babies <31 weeks GA and/or <1500 gm. -In the preterm infant, trophic feeds of 10-20 ml/kg/d given at the same rate for at least 5 days during TPN is a strategy to enhance feeding tolerance and decrease the side effects of TPN, and the time to achieve full feeds. Then daily increments of 10-30 ml/kg/d feeding advance is safe. -Bolus feeding is associated with better growth than continuous feeding for premature infants with relatively healthy GI tracts. -In TPN, 3.5 g AA/kg/d is optimal for growth. -In TPN, vitamins must be added to the fat emulsion to minimize loss of vitamins due to adherence to tubes and photodegradation. 	
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Commentary:

- Should we give premature babies on TPN, 5 days of trophic feeds before advancing feeds? Would need to stratify by wt categories.
- Would like to spend more time in d/w pharmacists regarding adding vitamins to lipids instead of the TPN CHO/AA solution.

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References:

Ben, X. (October, 2008). Nutritional management of newborn infants: Practical guidelines. *World Journal of Gastroenterology*, 114,(40):6133-6139.