

Recommendation Development Rationale

Systematic Review	Recommendation Developed	Rating	Rationale
Breast Milk Fortifier Type	Healthcare practitioners should fortify human milk fed to very low birth weight preterm infants because fortification increases weight gain and head circumference growth compared to human milk alone.	Weak	Subtopic considered a priority due to limitations of unfortified milk. Low certainty evidence show that benefits outweigh harms.
Breast Milk Fortifiers			
Formula Enrichment	When human milk is not available, healthcare practitioners should provide very low birthweight (less than or equal to 1, 500g) preterm infants with preterm infant formulas that provide higher nutrient density than standard infant formula. Nutrient-dense preterm formulas appear to more closely match the nutritional needs of very low birthweight preterm infants and long clinical experience with preterm formulas suggests that they support good growth, and both functional, and biochemical measures of nutritional adequacy.	Consensus	No randomized control trials that compared standard formulas to preterm infant formulas (as defined by organizations such as the Life Science Research Organization for preterm and standard term formulas) were identified in the VLBW preterm infant formula enrichment systematic review, therefore, the expert panel was unable to develop an evidence-based recommendation regarding the use of one type of formula over another.
Pasteurization	N/A	N/A	Very low evidence with uncertainty. Included one study with small population size in which mothers' own milk was pasteurized.
Protein Amount	Healthcare practitioners should provide 3.5g to 4.0g of protein per kg bodyweight via enteral nutrition to very low birthweight (less than or equal to 1, 500g) preterm infants. Protein intake at 3.5g to 4.0g per kg bodyweight supports superior growth and protein	Fair	Subtopic considered a priority due to concern about preterm infant growth, and lack of certainty on preterm infant protein needs. Desirable consequences of protein intake 3.5-
Protein-Energy			

	accretion compared to protein intake of less than 3.5g per kg bodyweight.		4.0 gm/kg outweighed undesirable consequences.
Type of Fat	Health care practitioners should not routinely supplement additional enteral long chain fatty acids [docosahexaenoic acid (DHA), eicosapentaenoic acid (EPA), and arachidonic acid (AA)] for very low birthweight (less than or equal to 1, 500g at birth) preterm infants. If health care practitioners choose to supplement additional omega-3, then AA should also be provided. Current evidence does not suggest consistent benefits with enteral long chain fatty acid supplementation.	Fair	Subtopic considered a priority due to uncertainty about how to correct fatty acid deficit and whether this can be done in a meaningful way. High certainty evidence showed that long chain omega-3 fatty acid intake does not have an effect on outcomes of interest.
Type of Protein	N/A	N/A	Subtopic considered a priority; however, certainty of evidence was very low and there was little evidence of net benefit of one type of protein over another.
Non-Protein Energy	N/A	N/A	Subtopic considered a priority; however, the balance between desirable and undesirable consequences was balanced or uncertain.
Human Milk vs. Formula	Health care practitioners should provide fortified human milk regardless of source (mother's or donor) to very low birth weight (less than or equal to 1, 500g) infants when available. Growth should be monitored by practitioners and the nutrition care plan should be adjusted as appropriate.	Weak	Subtopic considered a priority; choice of enteral feeding can influence outcomes of interest. Low certainty evidence was available that showed desirable consequences outweigh undesirable consequences.
Mothers' Milk vs. Exclusive Formula	Health care practitioners should provide fortified mother's milk, when available, to VLBW (less than or equal to 1, 500g) preterm infants. Mother's own milk intake is associated with lower odds of retinopathy of prematurity when compared to exclusive formula, and there is evidence of a negative dose-response relationship with sepsis and a positive dose-response relationship with Bailey development scores.	Fair	Subtopic considered a priority; most health organizations agree that human milk is associated with improved health, however, some benefits may be related to confounding factors. Desirable consequences outweigh undesirable consequences for
Mothers' Milk Dose Response			

			mothers' milk; however, effects were not as large as expected.
Supplementation of Mothers' Milk with Donor Milk vs. Exclusive Formula	When quantity of mothers' milk is insufficient, health care practitioners should supplement VLBW (less than or equal to 1, 500g) preterm infants with donor milk during the time that the infant is at high risk for necrotizing enterocolitis (NEC). VLBW preterm infants fed mother's own milk supplemented with donor milk had a lower risk of NEC compared to those fed mother's own milk supplemented with formula.	Fair	Subtopic considered a priority, limited guidance on feeding options when mothers' milk is not available. Moderate certainty evidence showed that the benefits of donor milk outweighed potential harm.
Donor Milk			
Human Milk (Mothers' Milk and Donor) vs. Exclusive Formula	Health care practitioners should provide fortified human milk regardless of source (mother's or donor) to very low birth weight (less than or equal to 1, 500g) infants when available. Growth should be monitored by practitioners and the nutrition care plan should be adjusted as appropriate.	Weak	Subtopic considered a priority, use of donor and mothers' milk may promote exclusive enteral feeding. Low certainty evidence showed benefits outweighed potential harm.
Human Milk (Mother's milk and Donor) Dose Response			