Appendix H.2 — Evidence to Decision: Enteral Nutrition

EtD 18. Should we give infant formula/donor milk vs. wait for mother's own milk be used for moderate-to-late preterm infants whose mothers' breastmilk is not available at birth?

POPULATION:	Moderate-to-late preterm infants whose mothers' breastmilk is not available at birth
INTERVENTION:	Infant formula/donor milk
COMPARISON:	Wait for mother's own milk
MAIN OUTCOMES:	**Critical outcomes** Mortality Neurodevelopmental impairment Fully breastfed or breastmilk feeding at hospital discharge **Important but not critical** Adverse effects Time to full enteral feeds Duration of initial hospital stay Sepsis: proven or suspected Bronchopulmonary dysplasia Necrotising enterocolitis Retinopathy of prematurity Anaemia of prematurity Faltering growth/body composition Cost: cost of intervention, cost of neonatal care and life-long cost **Less important for decision making** Time to full sucking feeds
SETTING:	Neonatal care
PERSPECTIVE:	Clinical recommendation: population perspective
BACKGROUND:	The choice of nutrition support for moderate-to-late preterm infants when mothers' breastmilk is not yet available may have a significant impact on short- and long-term outcomes. Parenteral nutrition (PN) ensures the direct provision of essential nutrients into the bloodstream. While PN supports early growth and prevents malnutrition, it is invasive and poses risks such as catheter-related infections, biochemical imbalances and liver dysfunction. Parenteral 10% glucose is often used temporarily to prevent dehydration and hypoglycaemia in the absence of enteral nutrition, but it does not provide the protein, fat, and micronutrients necessary for growth and development. Use for more than a few days leads to nutrient deficits. Infant formula is nutritionally complete and supports growth when human breastmilk is unavailable. However, it lacks the bioactive components of human breastmilk, increasing the risk of feeding intolerance and necrotising enterocolitis (NEC). Donor breastmilk, when available, is preferred to infant formula because it provides bioactive factors that promote immunity, gut maturation, and neurodevelopment while lowering the risk of NEC. However, the protein and energy content may be lower than infant formula, necessitating additional fortification. Selecting the optimal feeding method involves balancing the

	immediate fluid and nutritional needs of the infant with the long-term benefits of waiting for mother's own breastmilk to promote breastfeeding, optimal neurodevelopment and long-term health.
CONFLICT OF INTERESTS:	The following DIAMOND study investigators and co-authors (references 1, 2 and 3) are on the Guideline Development Group: Tanith Alexander and Frank Bloomfield

Assessment

Desirable Effects

How substantial are the desirable anticipated effects?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
● Trivial ○ Small ○ Moderate ○ Large ○ Varies ○ Don't know	[1,2] **Mortality**: RCT: Little or no effect on mortality between milk supplement and mother's own milk (0/261 for supplement milk vs. 1/271 for mother's own milk) [Critical]. **Duration of initial hospital stay:** RCT: Little or no effect on duration of hospital stay (adj MD 0.17 days higher; 1.43 lower to 1.77 higher) [Important]. **Sepsis**: RCT: Little or no effect between milk supplementation and mother's own milk for incidence of sepsis (1/261 for supplement milk vs. 3/271 for mother's own milk) [Important]. **Necrotising enterocolitis (NEC)**: RCT: Little or no effect between milk supplementation and mother's own milk for incidence of NEC (0/261 for supplement milk vs. 1/271) **No faltering growth/body composition**: RCT: Little or no effect in body-fat percentage at 4 months of corrected gestational age for supplemental milk (Adj MD 0.65 % higher; 0.45 lower to 1.74 higher); fat mass z score at discharge (Adj MD 0.1 points higher; 0.1 lower to 0.4 higher); day 7 weight z score (Adj MD 0.02 points higher; 0.02 lower to 0.05 higher); day 14 weight z score (Adj MD 0.03 points higher; 0.03 lower to 0.08 higher); day 21 weight z score (Adj MD 0.04 points higher; 0.03 lower to 0.12 higher); day 28 weight z score (Adj MD 0.1 points higher; 0.02 lower to 0.23 higher); discharge weight z score (Adj MD 0.01 points lower; 0.08 lower to 0.06 higher); 4 months corrected age weight z score (Adj MD 0.05 points higher; 0.14 lower to 0.24 higher); day 7 length z score (Adj MD 0 points; 0.1 lower to 0.12 higher); day 14 length z score (Adj MD 0 points; 0.12 lower to 0.11 higher); day 21 length z score (Adj MD 0.13 points lower; 0.28 lower to 0.01 higher); day 28 length z score (Adj MD 0.15 points lower; 0.35 lower to 0.06 higher); discharge length z score (Adj MD 0.05 points lower; 0.18 lower to 0.07 higher); 4 months corrected age length z score (Adj MD 0.07 points lower; 0.26 lower to 0.12 higher); day 7 head circumference z score (Adj MD 0.03 points higher; 0.07 lower to 0.13 higher); day 14 circumference z score (Adj MD 0.08 points higher; 0.02 lower to 0.18 higher); day 21 circumference z score (Adj MD 0.04points higher; 0.08 lower to 0.16 higher); day 28 circumference z score (Adj MD 0.09 points higher; 0.08 lower to 0.25 higher); discharge circumference z score (Adj MD 0.02 points lower; 0.12 lower to 0.08 higher); 4 months corrected age circumference z score (Adj MD 0.05 points lower; 0.23 lower to 0.14 higher) [Important]. **Time to achieve full sucking feeds:** RCT: Small effect for longer time to achieve full sucking feeds for supplemental milk (Adj HR 0.91 days higher; 0.69 higher to 1.19 higher) [Not important].	**Population information for included evidence** New Zealand: RCT (DIAMOND trial) [1,2] Population were moderate- to late-preterm infants. Note that only a small proportion of infants in this study received donor EBM. New Zealand [3]: Conference proceedings: Neurosensory impairment was similar at 2 years in milk supplement and mother's EBM (DIAMOND trial)

	Desirable effects for Māori No additional evidence available	

Outcomes	№ of participants (studies) Follow-up	Certainty of the evidence (GRADE)	Relative effect (95% CI)	Anticipated absolute effects* (95% CI)	
				Risk with mother's own milk	Risk difference with infant formula/donor milk
Mortality	532 (1 RCT)	⨁◯◯◯ Very low[a,b]	-	0/261 for supplement milk vs. 1/271 for mother's own milk	
Neurodevelopmental impairment - not measured	-	-	-	-	-
Fully breastfed or breastmilk feeding at hospital discharge: RCT	528 (1 RCT)	⨁⨁◯◯ Low[a]	**OR 0.96** (0.65 to 1.40)	Study population	
				708 per 1,000	**9 fewer per 1,000** (96 fewer to 64 more)
Adverse effects - not measured	-	-	-	-	-
Time to full enteral feeds: RCT assessed with: Days	526 (1 RCT)	⨁⨁◯◯ Low[a]	-	The mean time to full enteral feeds: RCT was **5.8 days**	Adj HR **1.13 higher** (0.88 higher to 1.34 higher)
Duration of initial hospital stay: RCT assessed with: Days	532 (1 RCT)	⨁◯◯◯ Very low[a,c]	-	The mean duration of initial hospital stay: RCT was **24.7 days**	adj MD **0.17 higher** (1.43 lower to 1.77 higher)
Sepsis: proven or suspected: RCT assessed with: Culture-proven late-onset sepsis	532 (1 RCT)	⨁◯◯◯ Very low[a,b]	-	1/261 for supplement milk vs. 3/271 for mother's own milk	
Sepsis: proven or suspected: RCT assessed with: Probable late-onset sepsis	532 (1 RCT)	⨁◯◯◯ Very low[a,b]	-	1/261 for supplement milk vs. 3/271 for mother's own milk	
Bronchopulmonary dysplasia - not measured	-	-	-	-	-
Necrotising enterocolitis: RCT	532 (1 RCT)	⨁◯◯◯ Very low[a,b]	-	0/261 for supplement milk vs. 1/271 for mother's own milk	
Retinopathy of prematurity - not measured	-	-	-	-	-
Anaemia of prematurity - not measured	-	-	-	-	-
Faltering growth/body composition: RCT assessed with: Body-fat percentage at 4 months of corrected gestational age	324 (1 RCT)	⨁⨁◯◯ Low[a]	-	The mean faltering growth/body composition: RCT was **25.8%**	Adj MD **0.65 higher** (0.45 lower to 1.74 higher)
Faltering growth/body composition: RCT assessed with: Discharge: Fat mass z score	324 (1 RCT)	⨁⨁◯◯ Low[a]	-	The mean faltering growth/body composition: RCT was **-0.5 points**	Adj MD **0.1 higher** (0.1 lower to 0.4 higher)

Faltering growth/body composition: RCT assessed with: Day 7: Weight z score	493 (1 RCT)	⨁◯◯◯ Very low[a,d]	-	The mean faltering growth/body composition: RCT was **-0.87 points**	Adj MD **0.02 higher** (0.02 lower to 0.05 higher)
Faltering growth/body composition: RCT assessed with: Day 14: Weight z score	428 (1 RCT)	⨁◯◯◯ Very low[a,d]	-	The mean faltering growth/body composition: RCT was **-0.93 points**	Adj MD **0.03 higher** (0.03 lower to 0.08 higher)
Faltering growth/body composition: RCT assessed with: Day 21: Weight z score	309 (1 RCT)	⨁◯◯◯ Very low[a,d]	-	The mean faltering growth/body composition: RCT was **-0.84 points**	Adj MD **0.04 higher** (0.03 lower to 0.12 higher)
Faltering growth/body composition: RCT assessed with: Day 28: Weight z score	182 (1 RCT)	⨁◯◯◯ Very low[a,d]	-	The mean faltering growth/body composition: RCT was **-0.77 points**	Adj MD **0.1 higher** (0.02 lower to 0.23 higher)
Faltering growth/body composition: RCT assessed with: Discharge: Weight z score	514 (1 RCT)	⨁◯◯◯ Very low[a,d]	-	The mean faltering growth/body composition: RCT was **-0.76 points**	Adj MD **0.01 lower** (0.08 lower to 0.06 higher)
Faltering growth/body composition: RCT assessed with: 4 months' corrected age: Weight z score	401 (1 RCT)	⨁◯◯◯ Very low[a,d]	-	The mean faltering growth/body composition: RCT was **-0.05 points**	Adj MD **0.05 higher** (0.14 lower to 0.24 higher)
Faltering growth/body composition: RCT assessed with: Day 7: Length z score	469 (1 RCT)	⨁◯◯◯ Very low[a,d]	-	The mean faltering growth/body composition: RCT was **-0.19 points**	Adj MD **0** (0.1 lower to 0.12 higher)
Faltering growth/body composition: RCT assessed with: Day 14: Length z score	415 (1 RCT)	⨁◯◯◯ Very low[a,d]	-	The mean faltering growth/body composition: RCT was **-0.31 points**	Adj MD **0** (0.12 lower to 0.11 higher)
Faltering growth/body composition: RCT assessed with: Day 21: Length z score	299 (1 RCT)	⨁◯◯◯ Very low[a,d]	-	The mean faltering growth/body composition: RCT was **-0.26 points**	Adj MD **0.13 lower** (0.28 lower to 0.01 higher)
Faltering growth/body composition: RCT assessed with: Day 28: Length z score	178 (1 RCT)	⨁◯◯◯ Very low[a,d]	-	The mean faltering growth/body composition: RCT was **-0.34 points**	Adj MD **0.15 lower** (0.35 lower to 0.06 higher)
Faltering growth/body composition: RCT assessed with: Discharge: Length z score	495 (1 RCT)	⨁◯◯◯ Very low[a,d]	-	The mean faltering growth/body composition: RCT was **-0.17 points**	Adj MD **0.05 lower** (0.18 lower to 0.07 higher)
Faltering growth/body composition: RCT assessed with: 4 months' corrected age: Length z score	401 (1 RCT)	⨁◯◯◯ Very low[a,d]	-	The mean faltering growth/body composition: RCT was **0.57 points**	Adj MD **0.07 lower** (0.26 lower to 0.12 higher)
Faltering growth/body composition: RCT assessed with: Day 7: Head circumference z score	472 (1 RCT)	⨁◯◯◯ Very low[a,d]	-	The mean faltering growth/body composition: RCT was **-0.27 points**	Adj MD **0.03 higher** (0.07 lower to 0.13 higher)
Faltering growth/body composition: RCT assessed with: Day 14: Head circumference z score	420 (1 RCT)	⨁◯◯◯ Very low[a,d]	-	The mean faltering growth/body composition: RCT was **-0.28 points**	Adj MD **0.08 higher** (0.02 lower to 0.18 higher)
Faltering growth/body composition: RCT assessed with: Day 21: Head circumference z score	299 (1 RCT)	⨁◯◯◯ Very low[a,d]	-	The mean faltering growth/body composition: RCT was **-0.12 points**	Adj MD **0.04 higher** (0.08 lower to 0.16 higher)
Faltering growth/body composition: RCT assessed with: Day 28: Head circumference z score	178 (1 RCT)	⨁◯◯◯ Very low[a,c]	-	The mean faltering growth/body composition: RCT was **-0.02 points**	Adj MD **0.09 higher** (0.08 lower to 0.25 higher)

Faltering growth/body composition: RCT assessed with: Discharge: Head circumference z score	500 (1 RCT)	⨁◯◯◯ Very low[a,d]	-	The mean faltering growth/body composition: RCT was **0.03 points**	Adj MD **0.02 lower** (0.12 lower to 0.08 higher)
Faltering growth/body composition: RCT assessed with: 4 months' corrected age: Head circumference z score	401 (1 RCT)	⨁◯◯◯ Very low[a,d]	-	The mean faltering growth/body composition: RCT was **0.74 points**	Adj MD **0.05 lower** (0.23 lower to 0.14 higher)
Cost: cost of intervention, cost of neonatal care and life-long cost - not measured	-	-	-	-	-
Time to full sucking feeds: RCT	519 (1 RCT)	⨁⨁◯◯ Low[a]	-	The mean time to full sucking feeds: RCT was **22.2 days**	Adj HR **0.91 higher** (0.69 higher to 1.19 higher)

a. Downgraded one level for indirectness as evidence is based on a single trial.
b. Downgraded two levels for imprecision as unable to provide effect estimate and only one study with extremely low or no events
c. Downgraded one level for imprecision with wide confidence intervals that cross the line of no effect
d. Downgraded one level for imprecision with confidence intervals that cross the line of no effect

Undesirable Effects

How substantial are the undesirable anticipated effects?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
● Trivial ○ Small ○ Moderate ○ Large ○ Varies ○ Don't know	**Fully breastfed or breastmilk feeding at hospital discharge:** RCT: No significant effect on breastfeeding at discharge for infants receiving milk supplement (9 fewer per 1,000; 96 fewer to 64 more) [Critical]. **Time to full enteral feeds:** RCT: No significant effect on time to achieve full enteral feeds between groups (Adj HR 1.13 days earlier; 0.88 earlier to 1.34 later) [Important]. **Undesirable effects for Māori** No additional evidence available	

Certainty of evidence

What is the overall certainty of the evidence of effects?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
● Very low ○ Low ○ Moderate ○ High ○ No included studies	Low to very low certainty of evidence overall mainly due to the body of evidence being from a single trial, albeit well conducted. **Certainty of evidence for Māori** No additional evidence available	

Outcomes	Importance	Certainty of the evidence

		(GRADE)
Mortality	CRITICAL	⨁◯◯◯ Very low[a,b]
Neurodevelopmental impairment - not measured	CRITICAL	-
Fully breastfed or breastmilk feeding at hospital discharge: RCT	CRITICAL	⨁⨁◯◯ Low[a]
Adverse effects - not measured	IMPORTANT	-
Time to full enteral feeds: RCT assessed with: Days	IMPORTANT	⨁⨁◯◯ Low[a]
Duration of initial hospital stay: RCT assessed with: Days	IMPORTANT	⨁◯◯◯ Very low[a,c]
Sepsis: proven or suspected: RCT assessed with: Culture-proven late-onset sepsis	IMPORTANT	⨁◯◯◯ Very low[a,b]
Sepsis: proven or suspected: RCT assessed with: Probable late-onset sepsis	IMPORTANT	⨁◯◯◯ Very low[a,b]
Bronchopulmonary dysplasia - not measured	IMPORTANT	-
Necrotising enterocolitis: RCT	IMPORTANT	⨁◯◯◯ Very low[a,b]
Retinopathy of prematurity - not measured	IMPORTANT	-
Anaemia of prematurity - not measured	IMPORTANT	-
Faltering growth/body composition: RCT assessed with: Body-fat percentage at 4 months of corrected gestational age	IMPORTANT	⨁⨁◯◯ Low[a]
Faltering growth/body composition: RCT assessed with: Discharge: Fat mass z score	IMPORTANT	⨁⨁◯◯ Low[a]
Faltering growth/body composition: RCT assessed with: Day 7: Weight z score	IMPORTANT	⨁◯◯◯ Very low[a,d]
Faltering growth/body composition: RCT assessed with: Day 14: Weight z score	IMPORTANT	⨁◯◯◯ Very low[a,d]
Faltering growth/body composition: RCT assessed with: Day 21: Weight z score	IMPORTANT	⨁◯◯◯ Very low[a,d]
Faltering growth/body composition: RCT	IMPORTANT	⨁◯◯◯

assessed with: Day 28: Weight z score		Very low[a,d]
Faltering growth/body composition: RCT assessed with: Discharge: Weight z score	IMPORTANT	⨁◯◯◯ Very low[a,d]
Faltering growth/body composition: RCT assessed with: 4 months' corrected age: Weight z score	IMPORTANT	⨁◯◯◯ Very low[a,d]
Faltering growth/body composition: RCT assessed with: Day 7: Length z score	IMPORTANT	⨁◯◯◯ Very low[a,d]
Faltering growth/body composition: RCT assessed with: Day 14: Length z score	IMPORTANT	⨁◯◯◯ Very low[a,d]
Faltering growth/body composition: RCT assessed with: Day 21: Length z score	IMPORTANT	⨁◯◯◯ Very low[a,d]
Faltering growth/body composition: RCT assessed with: Day 28: Length z score	IMPORTANT	⨁◯◯◯ Very low[a,d]
Faltering growth/body composition: RCT assessed with: Discharge: Length z score	IMPORTANT	⨁◯◯◯ Very low[a,d]
Faltering growth/body composition: RCT assessed with: 4 months' corrected age: Length z score	IMPORTANT	⨁◯◯◯ Very low[a,d]
Faltering growth/body composition: RCT assessed with: Day 7: Head circumference z score	IMPORTANT	⨁◯◯◯ Very low[a,d]
Faltering growth/body composition: RCT assessed with: Day 14: Head circumference z score	IMPORTANT	⨁◯◯◯ Very low[a,d]
Faltering growth/body composition: RCT assessed with: Day 21: Head circumference z score	IMPORTANT	⨁◯◯◯ Very low[a,d]
Faltering growth/body composition: RCT assessed with: Day 28: Head circumference z score	IMPORTANT	⨁◯◯◯ Very low[a,c]
Faltering growth/body composition: RCT assessed with: Discharge: Head circumference z score	IMPORTANT	⨁◯◯◯ Very low[a,d]
Faltering growth/body composition: RCT assessed with: 4 months' corrected age: Head circumference z score	IMPORTANT	⨁◯◯◯ Very low[a,d]
Cost: cost of intervention, cost of neonatal care and life-long cost - not measured	IMPORTANT	-
Time to full sucking feeds: RCT	IMPORTANT	⨁⨁◯◯

		Low[a]

a. Downgraded one level for inconsistency as evidence is based on a single trial.
b. Downgraded two levels as unable to provide effect estimate and only one study with extremely low or no events
c. Downgraded one level for imprecision with wide confidence intervals that cross the line of no effect
d. Downgraded one level for imprecision with confidence intervals that cross the line of no effect

Values

Is there important uncertainty about or variability in how much people value the main outcomes?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Important uncertainty or variability ● Possibly important uncertainty or variability ○ Probably no important uncertainty or variability ○ No important uncertainty or variability	Possibly important uncertainty or variability **Values for Māori** No additional information	

Balance of effects

Does the balance between desirable and undesirable effects favour the intervention or the comparison?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Favours the comparison ○ Probably favours the comparison ● Does not favour either the intervention or the comparison ○ Probably favours the intervention ○ Favours the intervention ○ Varies ○ Don't know	**Infant formula/donor milk compared with mother's own milk moderate-to-late preterm infants whose mother's breastmilk is not available at birth - low certainty evidence** Uncertain effect on fully breastfed or breastmilk feeding at hospital discharge; faltering growth/body composition (Body-fat percentage at 4 months of corrected gestational age; fat mass z score at discharge Achieved full enteral feeds earlier Longer time to achieve full sucking feeds **Infant formula/donor milk compared with mother's own milk moderate-to-late preterm infants whose mother's breastmilk is not available at birth - very low certainty evidence** Little or no effect on mortality, sepsis (proven or suspected); NEC, faltering growth/body composition (day 7, 14, 21, 28, discharge and 4 months' corrected age weight z score, length z score and head circumference z score), duration of hospital stay **Balance of effects for Māori** No additional evidence	

Resources required

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Large costs ○ Moderate costs ● Negligible costs and savings ○ Moderate savings ○ Large savings ○ Varies ○ Don't know	**Enteral nutrition costs at 180 mL/kg/day $2 to $62 per day, depending on feed type (small)** Term infant formula $2 to $5 per day Preterm infant formula $6 to $15 per day Pasteurised donor milk from a milk bank ($16 per 100 mL) $29 to $43 per day Fortified donor milk from a milk bank ($23 per 100 mL) $42 to $62 per day Expressing and storage equipment Enteral feed warmers Lactation consultant time Bottles and nasogastric tubes **Costs for Formula** *The cost of fortified mother's own expressed breastmilk and preterm infant formula is similar over the course of a neonatal care admission.* **Resources required for Māori** No additional evidence available	

Certainty of evidence of required resources

What is the certainty of the evidence of resource requirements (costs)?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Very low ○ Low ○ Moderate ● High ○ No included studies	A formal assessment of the certainty of evidence of the cost was not undertaken. **Certainty of evidence of required sources for Māori** No additional evidence available	

Cost effectiveness

Does the cost-effectiveness of the intervention favour the intervention or the comparison?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS

○ Favours the comparison ○ Probably favours the comparison ○ Does not favour either the intervention or the comparison ○ Probably favours the intervention ○ Favours the intervention ○ Varies ● No included studies	There are no studies that assess the specific cost-effectiveness of infant formula/donor milk versus mother's own milk, particularly in the context of preterm infants. **Cost effectiveness for Māori** No additional evidence available	

Equity

What would be the impact on health equity?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Reduced ● Probably reduced ○ Probably no impact ○ Probably increased ○ Increased ○ Varies ○ Don't know	**Equity for Māori** Influenced by the effects of colonisation, pēpi Māori are more likely to be born preterm, admitted to NICU, born at extremely low birthweight and fewer survive. There is also a greater burden for Māori of morbidities associated with nutrition practices such as intraventricular haemorrhage, sepsis, bronchopulmonary dysplasia and neurodisability. Pēpi Māori may also experience different nutritional transitions in early life. In one recent Aotearoa New Zealand study, pēpi Māori transitioned off parenteral fluids more quickly than other ethnicities but were less likely to achieve a successful transition to mother's own milk only, with just 43% reaching this compared to 74% of Pacific and 70% of European infants. By day three, 55% of pēpi Māori had received alternative nutrition that was not mother's own milk, which was substantially higher than Pacific at 22%, European at 20% and Asian at 28%. Furthermore, pēpi Māori were significantly less likely to be exclusively breastmilk fed at discharge compared with European infants. These data highlight an urgent need for quality initiatives to support and encourage mothers of moderate- and late-preterm infants in their lactation. (2) **Equity for Pacific families** Implementing standardised parenteral nutrition practices in Aotearoa New Zealand will	

	contribute directly to reducing health disparities across all ethnicities and under-represented groups. While Pacific infants were more likely to successfully transition to mother's own milk only by comparison to Māori and European pēpi, 74% versus 43% and 70% respectively, they still had a high rate of receiving alternative nutrition by day three, with 22% affected. These findings highlight that variation in early nutrition practices affects all groups and addressing these differences through consistent care will promote more equitable outcomes for all preterm pēpi and their families. **Equity for underrepresented groups** Families who are migrants, live rurally or lack transport may find it difficult to provide breastmilk. Without flexible visiting policies or logistical support, participation may be limited. Equity calls for inclusive NICU policies and resources to ensure all families can benefit from lactation consultant support if needed. In the DIAMOND RCT, Asian infants also showed varied access to exclusive breastfeeding. These differences reflect broader systemic inequities in healthcare delivery and cultural support.	

Acceptability

Is the intervention acceptable to key interest-holders?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ No ○ Probably no ○ Probably yes ○ Yes ● Varies ○ Don't know	The acceptability of intravenous interventions, donor milk or infant formula to parents and health professionals may vary. **Acceptability for Māori** No additional data	

Feasibility

Is the intervention feasible to implement?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ No ○ Probably no ○ Probably yes ● Yes ○ Varies ○ Don't know	The feasibility of intravenous interventions, donor milk or infant formula will vary depending on the neonatal unit. **Feasibility for Māori** No data available	

Summary of judgements

	JUDGEMENT						
DESIRABLE EFFECTS	**Trivial**	Small	Moderate	Large		Varies	Don't know
UNDESIRABLE EFFECTS	**Trivial**	Small	Moderate	Large		Varies	Don't know
CERTAINTY OF EVIDENCE	**Very low**	Low	Moderate	High			No included studies
VALUES	Important uncertainty or variability	**Possibly important uncertainty or variability**	Probably no important uncertainty or variability	No important uncertainty or variability			
BALANCE OF EFFECTS	Favours the comparison	Probably favours the comparison	**Does not favour either the intervention or the comparison**	Probably favours the intervention	Favours the intervention	Varies	Don't know
RESOURCES REQUIRED	Large costs	Moderate costs	**Negligible costs and savings**	Moderate savings	Large savings	Varies	Don't know
CERTAINTY OF EVIDENCE OF REQUIRED RESOURCES	Very low	Low	Moderate	**High**			No included studies
COST EFFECTIVENESS	Favours the comparison	Probably favours the comparison	Does not favour either the intervention or the comparison	Probably favours the intervention	Favours the intervention	Varies	**No included studies**
EQUITY	Reduced	**Probably reduced**	Probably no impact	Probably increased	Increased	Varies	Don't know
ACCEPTABILITY	No	Probably no	Probably yes	Yes		**Varies**	Don't know
FEASIBILITY	No	Probably no	Probably yes	**Yes**		Varies	Don't know

Type of recommendation

Strong recommendation against the intervention	**Conditional recommendation against the intervention**	Conditional recommendation for either the intervention or the comparison	Conditional recommendation for the intervention	Strong recommendation for the intervention

○	●	○	○	○

References

1. Alexander, T.; Meyer, M.; Harding, J.E.; Alsweiler, J.M.; Jiang, Y.; Wall, C.; Muelbert, M.; Bloomfield, F.H.; Group, D.S. Nutritional management of moderate- and late-preterm infants commenced on intravenous fluids pending mother's own milk: Cohort analysis from the DIAMOND trial. *Front Pediatr* **2022**, *10*, 817331, doi:10.3389/fped.2022.817331.
2. Alexander, T.; Asadi, S.; Meyer, M.; Harding, J.E.; Jiang, Y.; Alsweiler, J.M.; Muelbert, M.; Bloomfield, F.H.; Group, D.T. Nutritional support for moderate-to-late-preterm infants - A randomized trial. *N Engl J Med* **2024**, *390*, 1493-1504, doi:10.1056/NEJMoa2313942.
3. Das, S.; Bloomfield, F.; Alexander, T.; Jiang, Y.; Gamble, G.; Lin, L.; Harding, J.E. Effect of different feeding strategies on neurosensory impairment at 2 years' corrected age in children born moderate-and-late preterm: Follow-up of the DIAMOND randomised trial. In Proceedings of PSANZ conference proceedings; pp. 6-40.

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