Appendix I. Adolopment of Existing Guideline Recommendations

NB. Only published existing guidelines deemed high quality due to at least two domains scoring ≥70% on appraisal with the AGREE II instrument were included. Minimal or no evidence was found for the "Summary of local evidence or context" sections of the following Evidence to Decision documents so local context has been provided by Guideline Development Group members.

Topic 1 — Parenteral Nutrition

AA 2. Which infants (by birthweight or gestational age) should receive parenteral nutrition?

Source recommendation			Back to question list
Source guideline title and developer	Neonatal parenteral nutrition NICE Guideline, 2020, No. 154 https://www.nice.org.uk/guidance/ng154/chapter/Recommendations#indications-for-and-timing-of-neonatal-parenteral-nutrition		
Existing guidelines recommendation	For preterm babies born before 31+0 weeks, start neonatal parenteral nutrition. For preterm babies born at or after 31+0 weeks, start parenteral nutrition if sufficient progress is not made with enteral feeding in the first 72 hours after birth. For preterm babies on enteral feeds, start parenteral nutrition if: enteral feeds have to be stopped and it is unlikely they will be restarted within 48 hours. enteral feeds have been stopped for more than 24 hours and there is unlikely to be sufficient progress with enteral feeding within a further 48 hours.		
Year published	2020		
Search updated/assessment of new evidence	August 2025		
Strength of recommendation	Expert opinion		
GRADE certainty of evidence	Very low		
Were EtD and SoF available?	Yes https://www.nice.org.uk/guidance/ng154/evidence/a1-predictors-of-enteral-feeding-success-pdf-7083230941 https://www.nice.org.uk/guidance/ng154/evidence/a2-optimal-timeframe-to-start-parenteral-nutrition-pdf-7083230942		
Is the recommendation recent and credible?	Yes AGREE II score: 88%		
Assessment of suitability for adolopment			
Is the recommendation relevant to local setting (population/ intervention/comparator)?	Yes, but several Aotearoa New Zealand hospitals already use <32 weeks as the criteria for parenteral nutrition.		
Are the judgements in the source EtD acceptable without modification?	Yes		
Are any local contextual factors different (e.g. cost, equity, feasibility)?	No		
EtD Criterion	**Summary of local evidence or context**	**Judgement**	**Notes**
Problem	High risk of faltering growth and nutritional deficits in infants	Priority	Aligns with local incidence of early feeding intolerance and

	<31 weeks or <1,500g; timely parenteral nutrition may address early deficits.		metabolic instability in very preterm infants.
Desirable effects	Prevents early catabolism; ensures early provision of nutrition; supports early metabolic stability.	Large	Supported by clinical practice consensus and ASPEN guidance, even with limited RCT evidence.
Undesirable effects	Potential risk of metabolic disturbances, line-associated sepsis, fluid overload.	Small	Risks are manageable with monitoring; considered acceptable compared to benefits.
Certainty of evidence	Both NICE & ASPEN are based on expert consensus or low-quality evidence.	Very low	No high-certainty RCTs guide specific gestational age or birthweight thresholds.
Values and preferences	Clinicians prioritise early nutrition and stabilisation; families likely to support interventions that support survival and development.	Possibly some uncertainty	Acceptable due to clear benefit in vulnerable population.
Balance of effects	Benefits of preventing early catabolic state and nutrient deficits outweigh manageable risks.	Favours intervention	Adapted recommendation improves clarity on timing.
Resources required	Trivial costs for central access, parenteral nutrition compounding and monitoring.	Trivial	Already standard practice in tertiary neonatal units.
Certainty of resource evidence	Local costing data consistent and reliable; international comparators align.	High	Data from hospital formularies and budgeting sources.
Cost-effectiveness	More cost-effective to prevent complications of undernutrition than to treat later faltering growth or NEC.	Favours intervention	Especially relevant where enteral feeds are delayed. No economic modelling was undertaken for this review because the committee agreed that other topics were higher priorities for economic evaluation.
Equity	Standardised early policy could improve equity for Māori and Pacific babies who may otherwise receive later intervention.	Probably increased	Alignment with equity goals of Te Tiriti o Waitangi and Aotearoa New Zealand neonatal strategy.
Acceptability	Generally accepted by neonatal staff, though workload may increase slightly with earlier initiation targets.	Yes	Emphasises role of early vascular access and workflow coordination.
Feasibility	Vascular access achievable soon after birth; protocols can support early parenteral nutrition delivery.	Yes	Supported by existing parenteral nutrition infrastructure in most units.

Judgement criteria for EtD	
Decision Type	☑ Adopted as is ☐ Adapted ☐ De novo recommendation required
Explanation of adoption	Current Aotearoa New Zealand practice is to use <32 weeks as the criterion. As there is no evidence to support the criterion of <32 weeks, the consensus was to adopt the NICE recommendations.
Final Recommendation	
Recommendation statement (adopted)	For preterm babies born <31+0 weeks, start neonatal parenteral nutrition. For preterm babies born ≥31+0 weeks, start parenteral nutrition if sufficient progress is not made with enteral feeding in the first 72 hours after birth. For preterm babies on enteral feeds, start parenteral nutrition if: enteral feeds need to be stopped and it is unlikely they will be restarted within 48 hours.

	enteral feeds have been stopped for more than 24 hours and there is unlikely to be sufficient progress with enteral feeding within a further 48 hours.
Strength	Conditional
Certainty of evidence	Very low
Basis for decision	While there was no specific evidence for this, there is a risk of significant deficits in nutrition and short-term and long-term adverse events if infants born before 32 weeks are not supported by parenteral nutrition from birth.
Subgroup Considerations	Infants <28 weeks may have greater benefit from early initiation due to higher nutrient deficits.
Implementation Considerations	Requires streamlined processes to ensure vascular access is secured and parenteral nutrition can be started within 6–8 hours of birth.
Monitoring and Evaluation	Track time from birth to initiation of parenteral nutrition.
Research Priorities	Early vs. delayed parenteral nutrition initiation stratified by gestation and birthweight.