

Neonatal parenteral nutrition overview

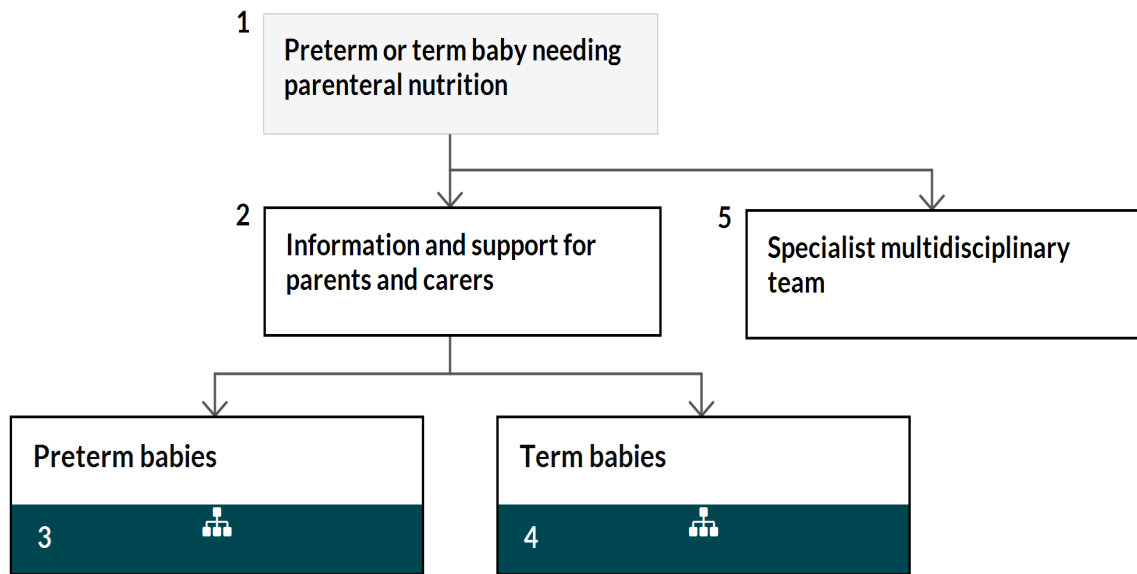
NICE Pathways bring together everything NICE says on a topic in an interactive flowchart. NICE Pathways are interactive and designed to be used online.

They are updated regularly as new NICE guidance is published. To view the latest version of this NICE Pathway see:

<http://pathways.nice.org.uk/pathways/neonatal-parenteral-nutrition>

NICE Pathway last updated: 25 February 2020

This document contains a single flowchart and uses numbering to link the boxes to the associated recommendations.



1 Preterm or term baby needing parenteral nutrition

No additional information

2 Information and support for parents and carers

Ask parents and carers of babies on parenteral nutrition how and when they would like to receive information and updates, and how much information they would like about their baby's care.

Topics to discuss with parents or carers include:

- why their baby needs parenteral nutrition
- what parenteral nutrition involves
- the importance of good nutrition for newborn babies
- how long their baby is likely to need parenteral nutrition for
- common concerns, for example, central venous catheter placement, the risk of catheter-related infections, taking blood samples, and whether they can hold and care for their baby
- simultaneous enteral feeding, unless this is not possible
- how their baby's progress will be monitored
- how their baby will be weaned off parenteral nutrition.

Give information to parents or carers that:

- is tailored to their baby's circumstances
- meets their needs and preferences
- is up to date, relevant and consistent between healthcare professionals
- is available in suitable formats (written and spoken, with information available to take away).

For more guidance on communication (including different formats and languages), providing information, and shared decision-making, see [enabling patients to actively participate in their care in the NICE Pathway on ensuring adults have the best experience of NHS services](#).

Provide regular opportunities and time for parents and carers of babies on parenteral nutrition to discuss their baby's care, ask questions about the information they have been given, and discuss concerns.

NICE has written information for the public on [neonatal parenteral nutrition](#).

Rationale and impact

See the NICE guideline to find out [why we made these recommendations and how they might affect practice](#).

3 Preterm babies

[See Neonatal parenteral nutrition / Parenteral nutrition for preterm babies](#)

4 Term babies

[See Neonatal parenteral nutrition / Parenteral nutrition for term babies](#)

5 Specialist multidisciplinary team

Neonatal parenteral nutrition services should be supported by a specialist multidisciplinary team. Such teams could be based locally or within a clinical network.

The neonatal parenteral nutrition multidisciplinary team should include a consultant neonatologist or paediatrician with a special interest in neonatology, a neonatal pharmacist and a neonatal dietitian, and should have access to the following:

- a neonatal nurse
- a paediatric gastroenterologist
- an expert in clinical biochemistry.

The neonatal parenteral nutrition multidisciplinary team should be responsible for:

- governance, including:
 - agreeing policies and protocols for the neonatal parenteral nutrition service
 - ensuring that policies and protocols for neonatal parenteral nutrition are followed and audited
 - monitoring clinical outcomes
- supporting delivery of parenteral nutrition, including:
 - providing clinical advice

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- - providing enhanced multidisciplinary team input for preterm [See page 6] and term babies with complex needs, for example, babies with short bowel syndrome who may need long-term parenteral nutrition.

Rationale and impact

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A lipid emulsion that is derived from more than 1 source, for example, it might include 2 or more of soy oil, medium chain triglycerides, olive oil or fish oil.

Aqueous and lipid parenteral nutrition solutions that meet the nutritional requirements of an individual baby. The solutions are not pre-formulated and have to be prescribed and made up each time they are needed, on an individual basis for each baby. Electrolytes can be added, and macronutrients or micronutrients can be adjusted as necessary.

A baby born before 37+0 weeks. This can be subdivided further:

- extremely preterm: babies born at less than 28+0 weeks
- very preterm: babies born at between 28+0 and 31+6 weeks
- moderate to late preterm: babies born at between 32+0 and 36+6 weeks.

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Standardised bags contain pre-formulated aqueous and lipid parenteral nutrition solutions made to a set composition that is not varied. They are ready to use and aim to meet the nutritional and clinical needs of a defined group of babies. Additional intravenous infusions are sometimes used to meet more individualised fluid or electrolyte requirements.

Standardised bags are prescribed as part of a standardised parenteral nutrition regimen: a choice of standardised bags that are given at the appropriate volume to meet the nutritional and clinical needs of a defined group of babies.

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Sources

[Neonatal parenteral nutrition](#) (2020) NICE guideline NG154

Your responsibility

Guidelines

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.

Local commissioners and providers of healthcare have a responsibility to enable the guideline to be applied when individual professionals and people using services wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with complying with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should [assess and reduce the environmental impact of implementing NICE recommendations](#) wherever possible.

Technology appraisals

The recommendations in this interactive flowchart represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, health

professionals are expected to take these recommendations fully into account, alongside the individual needs, preferences and values of their patients. The application of the recommendations in this interactive flowchart is at the discretion of health professionals and their individual patients and do not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or their carer or guardian.

Commissioners and/or providers have a responsibility to provide the funding required to enable the recommendations to be applied when individual health professionals and their patients wish to use it, in accordance with the NHS Constitution. They should do so in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Medical technologies guidance, diagnostics guidance and interventional procedures guidance

The recommendations in this interactive flowchart represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, healthcare professionals are expected to take these recommendations fully into account. However, the interactive flowchart does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

Commissioners and/or providers have a responsibility to implement the recommendations, in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity, and foster good relations. Nothing in this interactive flowchart should be interpreted in a way that would be inconsistent with compliance with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.