When and how to give parenteral nutrition

A NICE pathway brings together all NICE guidance, quality standards and materials to support implementation on a specific topic area. The pathways are interactive and designed to be used online. This pdf version gives you a single pathway diagram and uses numbering to link the boxes in the diagram to the associated recommendations.

To view the online version of this pathway visit:

http://pathways.nice.org.uk/pathways/nutrition-support-in-adults

Pathway last updated: 04 September 2014
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### 1 Person who may need parenteral nutrition

No additional information

### 2 Indications for parenteral nutrition

Healthcare professionals should consider parenteral nutrition in people who are malnourished or at risk of malnutrition if they meet either of the following criteria:

- inadequate or unsafe oral and/or enteral nutritional intake
- a non-functional, inaccessible or perforated (leaking) gastrointestinal tract.

For information on definitions of people who are malnourished or at risk of malnutrition, see *indications for nutrition support* in this pathway.

#### Patients having surgery

Healthcare professionals should consider supplementary peri-operative parenteral nutrition in malnourished surgical patients who meet either of the criteria above.

If intestinal tolerance persistently limits enteral tube feeding in surgical or critical care patients, use parenteral nutrition to supplement or replace enteral tube feeding.

For more information on enteral tube feeding, see *when and how to give enteral tube feeding* in this pathway.

### 3 Route of access

In hospital, parenteral nutrition can be given via a dedicated peripherally inserted central catheter. A free dedicated lumen in a multi-lumen centrally placed catheter may also be used.

For short-term feeding (less than 14 days), consider feeding via a peripheral venous catheter for patients who have no need for central access for other reasons. Take care in choosing catheters. Pay attention to pH, tonicity and long-term compatibility of the parenteral nutrition mixture in order to avoid administration or stability problems.

Tunnelling subclavian lines is recommended for long-term use (more than 30 days).
Catheters do not have to be tunnelled for short-term use (less than 30 days).

**Management of catheters**

Only healthcare professionals competent in catheter placement should place catheters, and they should be aware of the importance of monitoring and managing these safely. See the pathway on prevention and control of healthcare-associated infections pathway for more information.

For more information about support in the community, see support for person receiving parenteral nutrition in this pathway.

### 4 Delivery

Offer continuous administration of parenteral nutrition as the preferred method of infusion in severely ill people who require parenteral nutrition.

Consider cyclical delivery of parenteral nutrition when using peripheral venous cannulae with planned routine catheter change.

Consider a gradual change from continuous to cyclical delivery in patients requiring parenteral nutrition for more than 2 weeks.

**Prescription**

Introduce parenteral nutrition progressively, usually at no more than 50% of estimated needs for the first 24–48 hours, and monitor closely.

Nutritional requirements should be assessed by healthcare professionals with the relevant skills and training in the prescription of nutrition support.

Always add micronutrients and trace elements to parenteral nutrition; additional electrolytes and other nutrients may also be needed. Additions should be made under appropriate pharmaceutically controlled environmental conditions before the parenteral nutrition is administered.
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Glossary

Sources


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