

BSNA survey highlights need for more support and training for healthcare professionals to optimise patient outcomes with parenteral nutrition

In 2024, BSNA conducted a survey amongst **169 UK healthcare professionals (HCPs)** to gain further insights into their **experience and views on parenteral nutrition (PN)**, in particular looking at confidence and perceived barriers to using PN. The survey was conducted online and in-person at the BAPEN 2024 Annual Conference and included **pharmacists (47%), dietitians (40%), nurses (9%), and gastroenterologists and other physicians (4%)** from teaching hospitals and specialist paediatric centres (65%), district general hospitals (25%) and community and other settings.¹

PN is the provision of nutrients and fluid to a patient by an intravenous route via a peripheral or central line. Current guidance from the National Institute for Health and Care Excellence (NICE) recommends that **PN should be considered for patients who are malnourished or at risk of malnutrition and either have an inadequate or unsafe oral and/or enteral nutritional intake, or a non-functional, inaccessible or perforated gastrointestinal tract.**²

Good awareness of PN guidelines amongst HCPs

HCPs are aware of clinical guidance around the use of PN, particularly the **NICE guideline on Nutrition Support in Adults**² and specific guidelines on PN use in neonatal and paediatric patient populations [figure 1].^{3,4}

95% of HCPs would consider PN for patients with a non-functioning or inaccessible GI tract and 76% would consider PN for malnourished patients with an unsafe or inadequate oral and/or enteral nutrition intake.

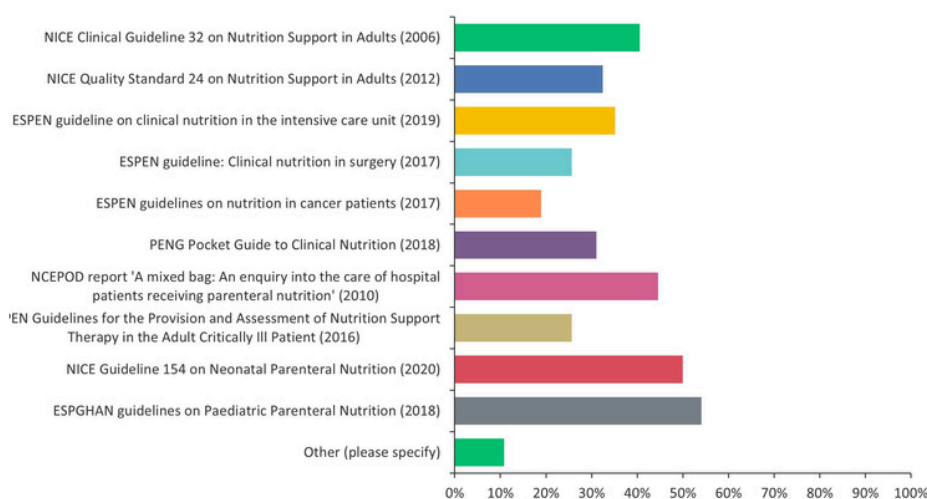


Figure 1. Familiarity with PN guidelines and reports

Lack of consistency around PN management and decision-making

The importance of a **Nutrition Support Team (NST)** in the initiation and management of nutritional therapy (particularly PN) has been recognised for many years.⁵ However, despite representation from a large number of teaching hospitals and specialist centres, **only 65% of respondents said that their hospital had a NST**, and only 55% of NSTs had responsibility for PN. This is a reduction from a previous survey which took place in 2015.

Physicians are still the main prescribers of PN across healthcare settings, although pharmacists, dietitians and nurses have prescribing responsibilities in some centres. Formulation decisions about the nutritional composition of PN bags are made by dietitians, pharmacists and consultant physicians in centres both with and without a NST.



Specialist pharmacists are becoming more involved in all aspects of PN from patient assessment, to compounding and monitoring.⁶ Team working through a **multi-disciplinary NST has been shown to deliver better patient outcomes in the hospital setting**, helping to reduce potential complications.⁷

Clinical experience with PN varies

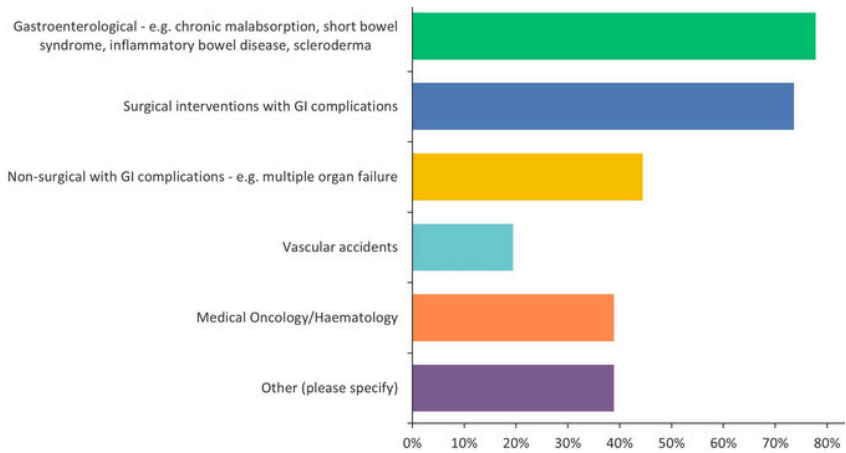


Figure 2. Types of patients receiving PN

Experience with PN varies according to the speciality and type of centre. Most HCPs that responded manage patients who are receiving PN either due to **gastroenterological conditions** (83%) or **surgical interventions with gastrointestinal complications** (74%) [figure 2].

Around half of respondents manage between **1 and 5 patients per week**, with 14% managing more than 16 patients per week. Many HCPs do not manage PN patients on a regular basis.

PN is used in a variety of ways, and **for over half of patients** it is their **sole source of nutrition**. Around **a third of patients receive PN combined with enteral tube feeding**, and it is also used in **combination with oral nutrition** intake and with **both enteral and oral nutrition**.

Training is essential to increase HCP confidence in using PN, particularly in homecare settings

Lack of training, expertise and support is a major concern for over 29% of HCPs and anxieties around potential complications arising from PN may also stem from a lack of training. With an increased focus on home parenteral nutrition, training patients to manage and self-administer PN is a clear concern with almost **75% of respondents reporting a lack of confidence in this area**. In addition, 56% of HCPs did not feel confident managing discharge planning for patients returning home on PN.

The majority of respondents indicated that they would **like to receive more training on the use of PN to develop their knowledge and confidence** (22% of respondents had received no training at all). Online training was the preferred route, although practical training and best practice case studies were also felt to be useful.

Conclusion

PN is an effective feeding intervention which when used appropriately, can offer positive health outcomes in both the acute and chronic settings.⁸ PN is highly regulated and quality assured, often providing patients with bespoke nutrition that is tailored to their specific needs.

This survey shows that awareness of PN and its use is generally good but highlights a number of important factors including initiation and management of PN within the hospital setting, HCP confidence in managing certain aspects of PN, and the need for training and support.

In order to optimise the use and benefits of PN across care settings, BSNA calls for:

- **All acute hospital Trusts to have a Nutrition Support Team in place to provide guidance and support about nutritional interventions**
- **Comprehensive training on PN across all relevant healthcare disciplines**
- **Clear guidance on discharge planning and training for patients on home PN**

References

[1] British Specialist Nutrition Association (2024). Parenteral Nutrition Survey among Healthcare Professionals. Data on file. [2] National Institute for Health and Care Excellence (2006). *Nutrition Support for Adults: Oral nutrition support, enteral tube feeding and parenteral nutrition*. (NICE Guideline CG32). Updated August 2017. Available from: www.nice.org.uk/guidance/cg32/chapter/Recommendations#parenteral-nutrition-in-hospital-and-the-community [Accessed 9 July 2025]. [3] National Institute for Health and Care Excellence (2020). *Neonatal parenteral nutrition*. (NICE Guideline NG154). Available from: www.nice.org.uk/guidance/ng154 [Accessed 9 July 2025]. [4] ESPGHAN/ESPEN/ESPR/CSPEN Guidelines on Pediatric Parenteral Nutrition (2018). ESPGHAN/ESPEN/ESPR/CSPEN Working Group on Pediatric Parenteral Nutrition. *Clin Nutr*. 37, 2306-2429. [5] British Association for Parenteral and Enteral Nutrition (2007). *Organisation of Food and Nutritional Support in Hospitals*. Available from: www.bapen.org.uk/ofnsh/OrganizationOfNutritionalSupportWithinHospitals.pdf [Accessed 9 July 2025]. [6] British Association for Parenteral and Enteral Nutrition (BAPEN). The Nutrition Support Team Pharmacist and the Pharmacy. Available from www.bapen.org.uk/ofnsh/page13.html [Accessed 9 July 2025]. [7] Eriksen MK, et al (2021). Systematic review with meta-analysis: effects of implementing a nutrition support team for in-hospital parenteral nutrition. *Aliment Pharmacol Ther*. 54, 560-570. [8] Hellerman Itzhaki M, Singer P. (2020). Advances in Medical Nutrition Therapy: Parenteral Nutrition. *Nutrients*. 12 (3), 717.

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