



The Importance of Learning & Education Opportunities in Parenteral Nutrition



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What is parenteral nutrition (PN)?

PN – or intravenous nutrition – is the provision of nutrition via the intravenous route. A patient may receive PN on either a short or long-term basis if their gastrointestinal system is inaccessible or non-functioning and oral intake is inadequate or unsafe. A patient may also receive PN for other reasons, for example, as part of pre-operative care to improve postoperative outcomes.

Supporting patient access to PN – now and for the future

Every year in the UK approximately 2,700 patients receive PN on a permanent basis at home and significantly more receive PN on a short-term basis in hospital.

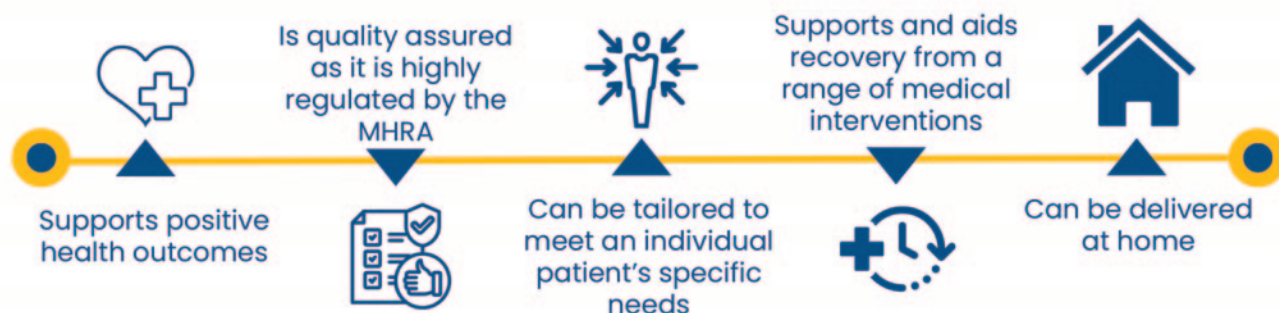
Over 1.2 million prescriptions of PN are delivered in hospital, care settings and at home.

As the Government's Ten-Year Health Plan seeks to shift even more care from hospitals to the community and in the home,

and support patients that are hospitalised can be discharged in a timely way, ensuring appropriate access to parenteral nutrition will be even more important.

The demand for PN is anticipated to grow by more than 3% per year over the next 10 years and BSNA members recognise the value of supporting healthcare professionals (HCPs) to understand the role and relevance of PN across a wide range of clinical pathways.

THE VALUE PN BRINGS TO PATIENT CARE



The role of BSNA and its members

BSNA represents the three main manufacturers of PN in the UK: Baxter, B. Braun and Fresenius Kabi. Our members take great care in ensuring that a high-quality product is maintained throughout the preparation, supply, delivery and administration to patients.

With our members, we work closely with organisations such as the British Association for Parenteral and Enteral Nutrition (BAPEN), the British Dietetic Association (BDA), Patients on Intravenous and Nasogastric Nutrition Treatment (PINNT), the National Nutrition Nurses Group (NNNG) and clinical experts to promote understanding of PN among HCPs and raise awareness of best practice in patient care.

Parenteral nutrition education activities

BSNA recognises the existence of a gap in education and training opportunities on PN for current and future HCPs. By providing opportunities for HCPs to understand, explore and appreciate the role of PN in the prevention and management of malnutrition, BSNA aims to contribute to appropriate and timely patient access to PN.

A HCP survey conducted in 2015 identified misconceptions and low levels of confidence in PN use, particularly among dietitians.

It is the feedback we have received from dietitians and other HCPs that has driven BSNA's educational activities on PN from our university sessions, dietitians webinars and nurses webinar series, to the animations we have developed and guides and articles we continue to produce.

To gain more up-to-date insights into HCPs' experience and views on PN and help inform our ongoing educational activities, BSNA conducted another survey in 2024. The survey gathered insights from 169 UK HCPs and looked particularly 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, dietitians, nurses, gastroenterologists and other physicians, across a variety of settings.

Survey highlights

The survey results show the continued need for more support and training for healthcare professionals to optimise patient outcomes with PN.

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

This is a reduction from the previous survey which took place in 2015.

The survey also reflects that 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 an NST.

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

Education and training – survey feedback

Lack of training, expertise and support is a major concern for nearly a third of HCPs and anxieties around potential complications arising from PN may also stem from a lack of training.

With an increased focus on home PN (HPN), training patients to manage and self-administer PN is a clear concern with almost three quarters of respondents reporting a lack of confidence in this area.

In addition, over half 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. Nearly a quarter had received no training at all.

An infographic with a full breakdown of the survey results is available on the BSNA website: <https://bsna.co.uk/publications>

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.

BSNA's university education sessions

As our survey shows – training is essential to increase HCP confidence in using PN, particularly in homecare settings. With our member companies, BSNA has sought to provide a wide range of educational opportunities for HCPs, particularly dietitians. In 2018, BSNA developed an education programme for dietetic students across the UK. BSNA, along with member companies, deliver the sessions, which also include an introduction to BSNA. In the 2018/2019 academic year, BSNA presented to two universities. This has since increased to 11 universities in the 2024/2025 academic year.

BSNA's webinar series – dietitians, nurses and PN in cancer care

In 2021, BSNA hosted a free 3-part webinar series for dietitians and the following year a further series was hosted for nurses. These sessions provide an overview of the different routes of feeding and product types used, and highlight where PN sits within the nutrition support continuum. The series explores:

- The indications for PN
- Licensing and preparation of PN and the differences between standard and bespoke PN
- How PN is administered
- Monitoring a patient on PN
- Considerations for patients on PN.

In addition to the general material covered in the dietetic series, this 3-part series addresses nursing concerns such as:

- Access points
- Management and monitoring of patients on PN
- Assessing for home PN and discharging home
- The role of the homecare nurse in management of patients on home PN.

In 2021, a total of 700 people registered across the three sessions, and 97% of attendees stating the webinar met or exceeded expectations.

For the 2022 nurses webinars, 200 people registered across the three sessions, with the majority of participants saying the content was very, if not extremely, interesting. BSNA repeated the dietitians webinar series at the end of 2025, and if you would like access to the recordings of these sessions, please do contact info@bsna.co.uk.



Nutrition in advanced cancer

In collaboration with the BDA Oncology Specialist Group, BSNA also hosted a more specific and targeted two-part webinar series on PN in advanced cancer in 2020. The webinar explored the rationale and background of starting patients with advanced malignancy on nutritional support. It evaluated the different forms of nutritional support with the focus on PN. It demonstrated and interrogated the existing guidelines available and relate this to the practice, along with providing key messages for managing patients with advance malignancies.

Training for pharmacists

The 2024 HCP PN survey identified a gap for pharmacist training, and this is an area BSNA has been working to address in the last 24 months. BSNA is now working with expert pharmacists at the specialised intestinal failure (IF) units, along with the Royal Pharmaceutical Society (RPS) to develop training modules for IF pharmacists. BSNA hopes to also deliver webinars in the future.

BSNA animations

As well as a video that is available on our website, giving an overview of PN and the sector as a whole, BSNA has also developed two educational video animations. The two animations explain how patients

receiving parenteral support in hospital can effectively manage their treatment at home once discharged from hospital, including what to expect at every stage of their journey. The video is a guide for patients and caregivers and can be used to help answer any questions the patient or caregiver may have.

PN advocacy documents

BSNA produces documents focused on key issues across all the sectors. We have developed a ‘Guide to Parenteral Nutrition’ to provide HCPs with a basic understanding of PN. This can be accessed and downloaded from the BSNA website.

In addition to specifically PN resources, BSNA has produced several documents on the issue of malnutrition and the need for nutritional support. Documents such as: ‘10 Point Plan to Improve the Management of Malnutrition: Summary Report’ and ‘Better Care Through Better Nutrition’ can be found on the BSNA publications page. In addition, previous published articles are also available here such as ‘Innovation and New Product Development in Medical Nutrition’ and ‘Clinical Nutrition Research Through the Years’.

BSNA publications are available on our website at: www.bsna.co.uk/publications and can be downloaded and shared with colleagues.

We welcome your thoughts on any further areas in which BSNA resources or events may be of value and encourage you to reach out for further information at: info@bsna.co.uk.

About the British Specialist Nutrition Association

BSNA is the trade association representing manufacturers of products designed to meet the particular nutritional needs of individuals; including specialist products for infants and young children (including infant formula, follow-on formula, young child formula and complementary foods), medical nutrition products for diseases, disorders and medical conditions, including oral nutritional supplements, enteral tube feeding and parenteral nutrition, as well as companies who aseptically compound chemotherapy, parenteral nutrition and CIVAS.

