

PTU-069 **INAPPROPRIATE LINE USE WITHIN THE IN-PATIENT PARENTERAL NUTRITION POPULATION: FREQUENCY & USAGE**

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Introduction In June 2010, the National Confidential Enquiry into Patient Outcome and Death published 'A Mixed Bag: an enquiry into the care of in-patients receiving parenteral nutrition' (PN). This study found only 19% of inpatients received care with respect to their PN that was considered good. It also revealed widespread variability in the type of venous access secured for the purpose of PN administration, with only 42% of lines being inserted solely for the use of PN. This further analysis aimed to delineate the frequency of line use for purposes other than PN, and the nature of this additional usage.

Methods All patients in England and Wales who received PN between 1st January and 31st March 2008 were identified from pharmacy records. Two patients per consultant were identified. A clinical questionnaire was sent to be completed by the consultant for each patient, and then returned with a copy of the case notes. The questionnaires and case notes were then analysed by our Advisor group consisting of consultants, dietitians and pharmacists.

Results Clinicians reported utilising a centrally inserted venous catheter (CVC) in 73% of patients (762/1042) for initial PN administration, with 15% (153/1042) via peripherally inserted central venous catheter (PICC), and 12% (127/1042) via peripheral cannula. Of those inserted, 73% were multilumen, and 27% single lumen lines. Lines were used for purposes other than PN in 37% (224/605). The most frequent usage of the CVC in addition to PN was for iv drugs and fluids combined (50%). Additional documented uses included: fluids alone (31%), drugs alone (13%), and other (6%). In 26% of cases there was a CVC related complication as deemed by the advisors. The commonest CVC complication was either suspected (36%) or confirmed line infection (23%). Overall rate of proven CVC related sepsis was 6% (45/734), and suspected line infection 9.5% (70/734), excluding patients where there was insufficient data.

Conclusion These results demonstrate a significant proportion of CVC use for purposes other than PN. Overall incidence of CVC-related sepsis in the literature varies widely from 1.3% to 26.2% of patients receiving PN.¹ Use of a multilumen CVC is associated with the highest frequency of CVC-related sepsis.² This is likely to reflect the high incidence of concurrent drug and fluid administration via a multilumen line as shown in this analysis. These results emphasise the importance of the ASPEN and BAPEN guidelines recommending single lumen CVCs for PN administration, a dedicated lumen in multilumen lines, and the avoidance of CVC use other than for PN where possible.

Competing interests None.

Keywords central venous catheter, complications, parenteral nutrition.

REFERENCES

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