

# Life on the Line

## An Audit of Parenteral Nutrition following the NCEPOD Report 'A Mixed Bag'

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### Aim

From the NCEPOD enquiry 2010 'A Mixed Bag' came the following statement

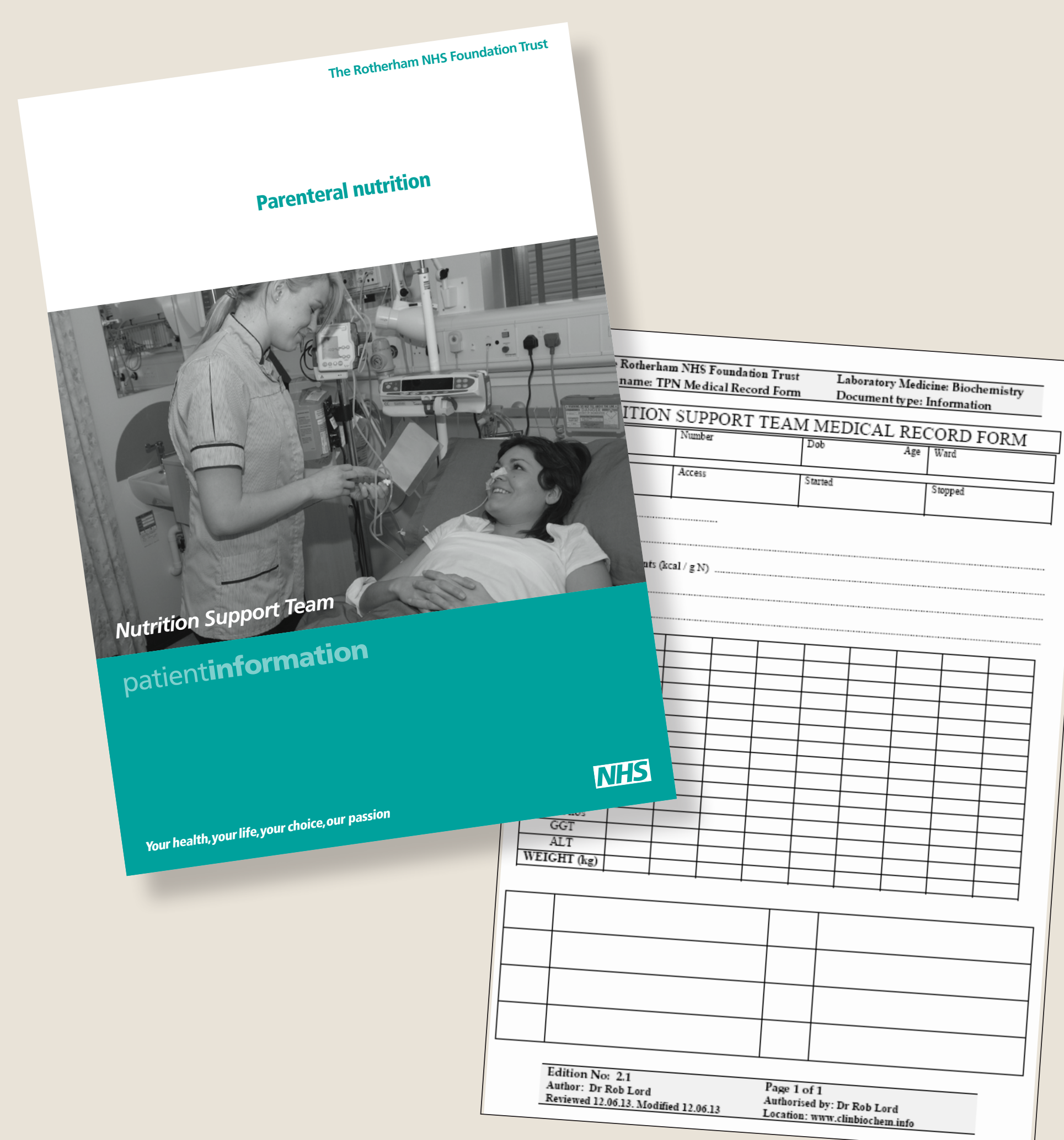
*"It is thus deeply depressing that the advisors should have found that the quality of care is so often unsatisfactory. Indeed, in our debates within the multi-collegiate NCEPOD Steering Group the scale of disappointment verged on disbelief. We found that only 19% of the adult cohort could be said to represent good practice."*



The aim of this study was to undertake yearly reviews of parenteral nutrition (PN) activity in adults from 2010 - 2013 at Rotherham Hospital benchmarked against NCEPOD data and on the basis of this make changes to improve the service.

### Method

Data collected on an annual basis from the Nutrition Support Team (NST), Pharmacy Dept and Vascular Access Team (VAT) were reviewed and compared to the six main thematic areas of the NCEPOD data.



### Results

#### 1. Indication for PN

Referrals for PN increased by 80% over the 4 year period studied. However, in 2013 20% of those patients referred for PN did not require it when assessed by the NST. One third of those patients had been referred on a Friday.

#### 2. Type of PN

In 2013 5% of PN bags were pre-compounded and used when PN commenced out of hours. The % of patients starting PN at a weekend fell from 8% in 2010 to 4% in 2013.

#### 3. Prescribing PN

Prescribing of PN is carried out on a daily basis Monday - Friday by the NST Consultant via B Braun Nutriflex prescribing software according to NICE recommendations. This duty is formalised within a job plan with agreed clinical PA time. In his absence PN prescribing is carried out by a Pharmacist Independent Prescriber. Prescribing of PN outside normal hours is discouraged but if required a set 'out of hours' prescription and bag is available.

#### 4. Vascular Access

Peripherally Inserted Central Catheters (PICCs) use for PN has increased from 60% to over 90% of patients. All PICCs are inserted and reviewed by senior nurses on the VAT.

#### 5. Complications

The Central Line Associated Bloodstream Infection (CLABSI) rate fell from 3.5/1000 catheter days in 2010 to zero over the time period 2011-2013.

#### 6. Nutrition Team

Daily review of patients takes place via a ward round of the doctor, dietitian, nurse and pharmacist with training of additional prescribing, dietetic and nursing staff to provide cover.

### Conclusion

The NCEPOD report highlighted a lack of good clinical practice for the provision of PN to adults in the UK. The NST at Rotherham Hospital reviewed the key findings from the report, and the recommendations made, and audited the use of PN against the six main thematic areas of the NCEPOD data. The need for robust patient assessment was a key recommendation from the report. To enable this patients who are not meeting their nutritional requirements orally or enterally are brought to the attention of the NST by ward based dietitians in addition to referrals from other staff. The daily ward round by the NST ensures that the combined expertise of the group is applied to each patient to ensure the appropriate prescribing of PN. PN is thus tailored to the patients nutritional requirements and the refeeding syndrome avoided. A proforma (NST

Medical Record Form) has been designed on the basis of NCEPOD recommendations and used for each patient on the daily ward round to ensure regular clinical and biochemical monitoring occurs. The NST is fortunate in working alongside an excellent Vascular Access Team so that appropriate vascular access is used and via a proactive approach to ward training have ensured that line complications are a very rare event. Training and education have been highlighted as an important component of safe PN delivery and regular training events regarding PN and the overall consideration of iv fluids, catheter care and biochemical monitoring is now part of Foundation doctor training at the hospital. In addition information about PN is also available on a web based resource at [www.clinbiochem.info/tpn.html](http://www.clinbiochem.info/tpn.html)

### References

1. A Mixed Bag – An enquiry into the care of hospital patients receiving parenteral nutrition. NCEPOD 2010
2. Nutrition Support in Adults (CG32) NICE 2006 (and Evidence Update 2013)