



PARENTERAL NUTRITION (PN) STUDY

National Confidential Enquiry into Patient Outcome and Death (NCEPOD)

Patient Care Questionnaire

CONFIDENTIAL

Hospital number of patient:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Name of NCEPOD Local Reporter:

Specialty of doctor completing form:

What is this study about?

How to complete this questionnaire?

NCEPOD is examining the process of care of patients of all ages who received parenteral nutrition as an inpatient between 1st January 2008 and 31st March 2008. The study aims to identify areas where the care of these patients might have been improved (remediable factors). All NHS and independent hospitals that admit both acute and elective admissions in England, Wales and Northern Ireland; public hospitals in the Isle of Man, Jersey and Guernsey, will be included in the study.

Information will be collected using two methods: Box cross and free text, where your clinical opinion will be requested.

This form will be electronically scanned. Please use a black or blue pen. Please complete all questions with either block capitals or a bold cross inside the boxes provided e.g.

Had the patient previously received PN?

Yes No

If you make a mistake, please "black-out" the incorrect box and re-enter the correct information, e.g.

Yes No

Exclusions - None

Unless indicated, please mark only one box per question.

Questions or help?

If you have any queries about the study or this questionnaire, please contact NCEPOD at:
Email: parenteralnutrition@ncepod.org.uk

Telephone: 020 7631 3444

Thank you for taking the time to complete this questionnaire. The findings of the full study will be published in mid to late 2010.

Clinician specialty codes and grades are listed on page 11

Please return the completed questionnaire and casenote extracts to NCEPOD in the SAE provided.

To ensure confidentiality of the data, completed questionnaires must be returned directly to NCEPOD.

A copy **must not** be kept in the patient's notes.

CPD Accreditation

Consultants who complete NCEPOD questionnaires make a valuable contribution to the investigation of patient care. Completion of questionnaires also provides an opportunity for consultants to review their clinical management and undertake a period of personal reflection. These activities have a continuing medical and professional development value for individual consultants. Consequently, NCEPOD recommends that consultants who complete NCEPOD questionnaires keep a record of this activity which can be included as evidence of internal/ self directed Continuous Professional Development in their appraisal portfolio

FOR NCEPOD USE ONLY

--	--	--	--	--	--	--	--	--	--



4 7 6 0 1 9 5 9 0 7 9 9 2

Please supply photocopies of the following casenote extracts from admission to PN start date and subsequent 2 weeks of PN (or until discharge if this is sooner)

Inpatient annotations (i.e the main casenotes)

Nursing notes

Nutrition notes (these are sometimes filed separately)

Biochemistry results (e.g. LFT, U&Es)

Haematology results (e.g. FBC)

Fluid balance charts (including urine output)

Drug charts (including PN prescription chart)

Nutritional charts

Observation charts (including TPR, CVP)

Weight chart

Urinalysis

X-ray/CT/USS reports

Any operating notes

Please provide a clinical summary of the patient's care in hospital





A. PATIENT DETAILS

1. Age at time of admission years
 If less than 2 years old months weeks days
 If premature baby Gestation weeks days
2. Gender: Male Female

B. THE ADMISSION

3. What was the date of admission?
 d d m m y y
4. What was the time of admission?
 (please use 24-hr clock)
 h h m m
5. a. Was the admission:
 A planned admission
 An emergency admission
 An Inter-hospital transfer
 Unknown
- b. Specialty of consultant patient admitted under
 (Please see codes on page 11)

C. PARENTERAL NUTRITION INDICATION

6. Under what specialty was the patient when the decision was made to commence PN? Unknown
 (Please see codes on page 11)
7. Under what specialty was the patient when PN was administered? Unknown
 (Please see codes on page 11)
8. Had the patient previously been given PN? Yes No Unknown





9. a. On what type of ward was the PN initially administered?

Adult Medical

Paediatric Critical care

Adult Surgical

Neonatal unit (SCBU)

Adult Critical Care

Dedicated Nutrition ward/area

Paediatric Medical

Other

Paediatric Surgical

Unknown

b. What level of care was this ward?

Level 1

Level 2 (e.g. HDU)

Level 3 (e.g. ICU)

Unknown

10. a. What was the indication for PN (answers may be multiple)?

Immaturity of GI function

Dysmotility

Chemotherapy

Congenital anomalies; gut

Fistulae

Cancer

Congenital anomalies; non gut

Malabsorption

Volvulus

Necrotizing enterocolitis

Pre-operative nutrition

Crohn's disease

Non functioning gut

No access for enteral nutrition

Post-surgical complications

Perforated/leaking gut

Failure of enteral nutrition

Radiation damage

Short bowel

Radiation enteritis

Post-operative ileus

Dysphagia

GVHD

Obstruction

Infection (e.g. C. difficile)

Other (please specify)

11. a. Had the patient received any kind of enteral feeding in the week prior to the decision to commence PN?

Yes

No

Unknown

b. If Yes, what:

Oral supplements

RIG

Nasogastric feeding

PEG-J

Naso-jejunal feeding

Surgical jejunostomy

PEG

Distal feeding

c. Why was it not possible to continue to feed the patient enterally?

12. If PN was the first method of nutritional support, how long had the patient been without adequate food or nutritional support before the PN was started?

days

Unknown

13. a. What was the interval between the decision to start PN and its commencement?

days

Unknown

b. If greater than 1 day, why was this?





14. a. Was a treatment goal documented?

Yes

No

b. If yes what was this? e.g. optimisation of nutrition pre-surgery

D. PATIENT ASSESSMENT

15. a. Did the patient have an assessment made for the need for PN

Yes

No

Unknown

b. If yes what were the elements of the assessment?

Clinical grounds

Tricep circumference/skin fold thickness

Biochemical review

Grip strength

Weight

Other

Mid-arm circumference

16. a. Who made the decision that PN should be commenced (answers may be multiple)?

Nurse

Doctor

Dietitian

specialty
(see page 11)

Pharmacist

grade
(see page 11)

Unknown

Other

b. Were they members of a nutrition team?

Yes

No

Unknown

17. Was the decision to start the PN made in normal working hours (8am - 5pm, Mon - Fri)?

Yes

No

Unknown

E. PARENTERAL NUTRITION PRESCRIPTION

18. What type of PN was first given?

Multi-chamber bag ('Off the shelf')

Tailored bag

Multi-chamber bag with micronutrients only

Unknown

Multi-chamber bag with micronutrients and tailored additions

19. If this was subsequently changed what was it to?

Multi-chamber bag ('Off the shelf')

Tailored bag

Multi-chamber bag with micronutrients only

PN not changed

Multi-chamber bag with micronutrients and tailored additions

Unknown

20. a. Who determined the nutritional requirements of the patient (answers may be multiple)?

Nurse

Doctor

Unknown

Dietitian

specialty
(see page 11)

Pharmacist

grade

Other

(see page 11)

b. Were they part of a nutrition team?

Yes

No

Unknown





21. a. Who signed the prescription?

Nurse

Doctor

Pharmacist

specialty

(see page 11)

Unknown

grade

(see page 11)

Other

b. Were they part of a nutrition team?

Yes

No

Unknown

c. Was this a different individual to the person(s) who determined the constitution?

Yes

No

Unknown

22. a. Who reviewed the patient with respect to their PN (answers may be multiple)?

Nurse

Doctor

Dietitian

specialty

(see page 11)

Pharmacist

grade

(see page 11)

Unknown

Other

b. Were they part of a nutrition team?

Yes

No

Unknown

23. How often was the patient reviewed with respect to PN?

Daily (7 days)

1-2 days/week

Daily (working week)

<1 day/week

3-5 days/week

Unknown

24. What was reviewed (answers may be multiple)?

Constitution of PN

Tricep circumference/skin fold thickness

Biochemical review

Grip strength

Clinical status

Vascular access

Ongoing need for PN

Other

Weight

Mid-arm circumference

25. How often was the PN prescription re-prescribed?

Daily (7 days)

Other

Daily (working week)

Not re-prescribed

Weekly

Unknown

b. How many times was the prescription changed during this admission?

No changes



F. VENOUS ACCESS/LINE CARE

26. How many CVCs did this patient have for PN during this admission? Unknown

Please answer the following questions with respect to the first **catheter** the patient received for PN

27. What was the initial mode of PN delivery
- | | |
|---|---|
| <input type="checkbox"/> Peripheral venous catheter | <input type="checkbox"/> Centrally inserted venous catheter |
| <input type="checkbox"/> Peripherally inserted central catheter | <input type="checkbox"/> Non-tunelled |
| <input type="checkbox"/> Umbilical vein | <input type="checkbox"/> Tunelled |
| <input type="checkbox"/> Implanted (e.g. Portacath) | <input type="checkbox"/> Unknown |
28. Type of catheter
- | | |
|-------------------------------------|---------------------------------------|
| <input type="checkbox"/> Multilumen | <input type="checkbox"/> Single lumen |
| <input type="checkbox"/> Cuffed | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Uncuffed | |
29. Was the catheter inserted?
- | | |
|--|----------------------------------|
| <input type="checkbox"/> Solely for PN | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> For general central venous access with one lumen for PN | |
30. Who inserted the catheter?
- | | |
|---|---|
| <input type="checkbox"/> Nurse | <input type="checkbox"/> Other <input type="text"/> |
| <input type="checkbox"/> Doctor | |
| specialty <input type="text"/> <input type="text"/> <input type="text"/> | <input type="checkbox"/> Unknown |
| (see page 11) | |
| grade <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> | |
| (see page 11) | |
31. Where was the patient when the catheter was inserted?
- | | |
|---|---|
| <input type="checkbox"/> General ward | <input type="checkbox"/> Operating theatre |
| <input type="checkbox"/> Treatment room | <input type="checkbox"/> Other <input type="text"/> |
| <input type="checkbox"/> Critical care | |
| <input type="checkbox"/> Radiology department | <input type="checkbox"/> Unknown |
32. What insertion technique was used?
- | | | |
|--|---------------------------------------|----------------------------------|
| <input type="checkbox"/> Open surgical | <input type="checkbox"/> Percutaneous | <input type="checkbox"/> Unknown |
|--|---------------------------------------|----------------------------------|
33. What asepsis precautions were used (answers may be multiple)?
- | | |
|--|--|
| <input type="checkbox"/> Gown & gloves | <input type="checkbox"/> Skin cleansing solution |
| <input type="checkbox"/> Face mask | <input type="checkbox"/> Iodine |
| <input type="checkbox"/> Draping | <input type="checkbox"/> Chlorhexidine 0.5% |
| <input type="checkbox"/> Not recorded | <input type="checkbox"/> Chlorhexidine 2.0% |





34. Were prophylactic antibiotics given during insertion of the catheter? Yes No Unknown

35. Where was the tip of the central catheter positioned? Superior vena cava Other
 Inferior vena cava Right atrium Not applicable
 SVC/RA junction Not documented

36. How was the position of the catheter verified? Image intensifier at time of insertion ECG Unknown
 Post insertion CXR Ultrasound

37. For how long was the initial catheter in place? days Unknown

38. If removed, what was the reason for removal (answers may be multiple)? End of PN Malfunction
 Line renewal Accidental
 Infection Other
 Occlusion
 Thrombosis

39. Who was responsible for changing the PN infusion bags (answers may be multiple)? General ward nurse Specifically PN trained nurse
 Other
 Unknown

40. Was access to catheter handling limited to PN-trained individuals? Yes No Unknown



G. NON-METABOLIC COMPLICATIONS

41. a. Did any non-metabolic complications occur with the first catheter inserted for PN? Yes No Unknown
- b. If Yes which of the following non-metabolic complications occurred (answers may be multiple)?
- | | |
|---|---|
| <input type="checkbox"/> Line misplacement | <input type="checkbox"/> Venous thrombosis |
| <input type="checkbox"/> Suspected line infection | <input type="checkbox"/> Pneumothorax |
| <input type="checkbox"/> Confirmed line infection | <input type="checkbox"/> Haemothorax |
| <input type="checkbox"/> Phlebitis | <input type="checkbox"/> TPN-oma/extravasation |
| <input type="checkbox"/> Accidental line removal | <input type="checkbox"/> Neurapraxia |
| <input type="checkbox"/> Line occlusion | <input type="checkbox"/> Other <input type="text"/> |
| <input type="checkbox"/> Line fracture/rupture | |

H. METABOLIC COMPLICATIONS

42. a. Did any metabolic complications occur with the first PN catheter? Yes No Unknown
- b. If Yes which of the following metabolic complications occurred (answers may be multiple)?
- | | |
|--|---|
| <input type="checkbox"/> Re-feeding syndrome | <input type="checkbox"/> Hypernatraemia |
| <input type="checkbox"/> Abnormal liver function | <input type="checkbox"/> Hypermagnesaemia |
| <input type="checkbox"/> Oedema | <input type="checkbox"/> Hyperphosphataemia |
| <input type="checkbox"/> Hypophosphataemia | <input type="checkbox"/> Hyperkalaemia |
| (without re-feeding syndrome) | |
| <input type="checkbox"/> Hypomagnesaemia | <input type="checkbox"/> Hyperglycaemia |
| <input type="checkbox"/> Hypokalaemia | <input type="checkbox"/> Other <input type="text"/> |
| <input type="checkbox"/> Hyponatraemia | |
43. a. Was there documented evidence that the patient was at risk from re-feeding syndrome? Yes No
- b. If Yes what precautions were taken to prevent re-feeding syndrome?
- | |
|--|
| <input type="checkbox"/> IV vitamins |
| <input type="checkbox"/> IV phosphate infusion |
| <input type="checkbox"/> Reduced initial rate of feeding |
| <input type="checkbox"/> Other <input type="text"/> |
| <input type="checkbox"/> None |
| <input type="checkbox"/> Unknown |

I. MISCELLANEOUS

44. a. Was the patient given insulin? Yes No Unknown

b. If Yes was this: (answers may be multiple)

- Part of critical care standard protocol
- Response to PN induced hyperglycaemia
- Diabetic patient

Other

45. a. Were IV fluids prescribed in addition to the PN? Yes No Unknown

b. If Yes was this: (answers may be multiple)

- To correct deficit
- To correct ongoing losses
- Routine maintenance fluid provision

Other

46. In total for how many days did the patient receive PN during this admission? days Unknown

47. a. Was feeding: Continuous

Cyclical

Unknown

b. If feeding was cyclical, how many hours/day did feeding last?

hours Unknown

48. What was the eventual outcome for this patient?

Weaned onto oral/enteral feeding

Home parenteral nutrition

Transferred to other unit

Discharged home

Died during hospital stay

Other

Thank you for completing this questionnaire - the findings of the study will be published in mid to late 2010



NATIONAL SPECIALTY CODES

100 = General Surgery	107 = Vascular Surgery	160 = Plastic Surgery
101 = Urology	110 = Trauma & Orthopaedics	161 = Burns Care
103 = Breast Surgery	120 = Ear, Nose & Throat (ENT)	170 = Cardiothoracic Surgery
104 = Colorectal Surgery	130 = Ophthalmology	172 = Cardiac Surgery
105 = Hepatobiliary & Pancreatic Surgery	140 = Oral Surgery	173 = Thoracic Surgery
106 = Upper Gastrointestinal Surgery	145 = Maxillo-Facial Surgery	180 = Accident & Emergency
	150 = Neurosurgery	190 = Anaesthetics
		192 = Critical/Intensive Care Medicine
300 = General Medicine	340 = Respiratory Medicine	500 = Obstetrics & Gynaecology
301 = Gastroenterology	350 = Infectious Diseases	501 = Obstetrics
302 = Endocrinology	352 = Tropical Medicine	502 = Gynaecology
303 = Clinical Haematology	360 = Genito-Urinary Medicine	800 = Clinical Oncology
306 = Hepatology	361 = Nephrology	810 = Radiology
307 = Diabetic Medicine	370 = Medical Oncology	820 = General Pathology
314 = Rehabilitation	400 = Neurology	823 = Haematology
315 = Palliative Medicine	410 = Rheumatology	
320 = Cardiology	430 = Geriatric Medicine	
171 = Paediatric Surgery	217 = Paediatric Maxillo- Facial Surgery	252 = Paediatric Endocrinology
211 = Paediatric Urology	218 = Paediatric Neurosurgery	253 = Paediatric Clinical Haematology
212 = Paediatric Transplantation Surgery	220 = Paediatric Burns Care	258 = Paediatric Respiratory Medicine
213 = Paediatric Gastrointestinal Surgery	221 = Paediatric Cardiac Surgery	260 = Paediatric Medical Oncology
214 = Paediatric Trauma & Orthopaedics	222 = Paediatric Thoracic Surgery	321 = Paediatric Cardiology
215 = Paediatric Ear, Nose & Throat	242 = Paediatric Intensive Care	420 = Paediatrics
	251 = Paediatric Gastroenterology	421 = Paediatric Neurology
		422 = Neonatology

CLINICIAN GRADES

When completing the questionnaire please use the codes below for the relevant clinician grades

Consultant = CONS

Senior specialist trainee (SpR 3+ or ST3+) = ST3

Non Consultant Career Grade = NCCG

Junior specialist trainee (SpR 1&2 or ST 1&2) = ST2

Staff and Associate Specialist = SAS

Basic grade (FY, HO's, SHO's or CT's) = FY

Trainee with completed certificate of training = CCT





NCEPOD
4-8 Maple Street
London
W1T 5HD

