British nutrition

Christian Lodberg Hvas
Afdelingslæge, ph.d. christian.hvas@auh.rm.dk
Medicinsk Hepato-gastroenterologisk Afdeling V
Aarhus Universitetshospital

DSKE, 10. oktober 2013

Aarhus Universitetshospital

AARHUS UNIVERSITET

midt regionmidtjylland

Resumé

- **Guidelines og omsorg**
- **Operationelle guidelines for klinisk ernæring**
  - Trinvis ernæringsterapi
  - Refeeding syndrom
- **Nutrition support team**
  - Ordination og monitorering af parenteral ernæring
  - Vurdering og opfølgning ved henvisning til PEG sonde

http://www.midstaffspublicinquiry.com/

NATIONAL CONFIDENTIAL ENQUIRY INTO PATIENT OUTCOME AND DEATH

http://www.ncepod.org.uk/

NICE National Institute for Health and Care Excellence

http://pathways.nice.org.uk/

NHS

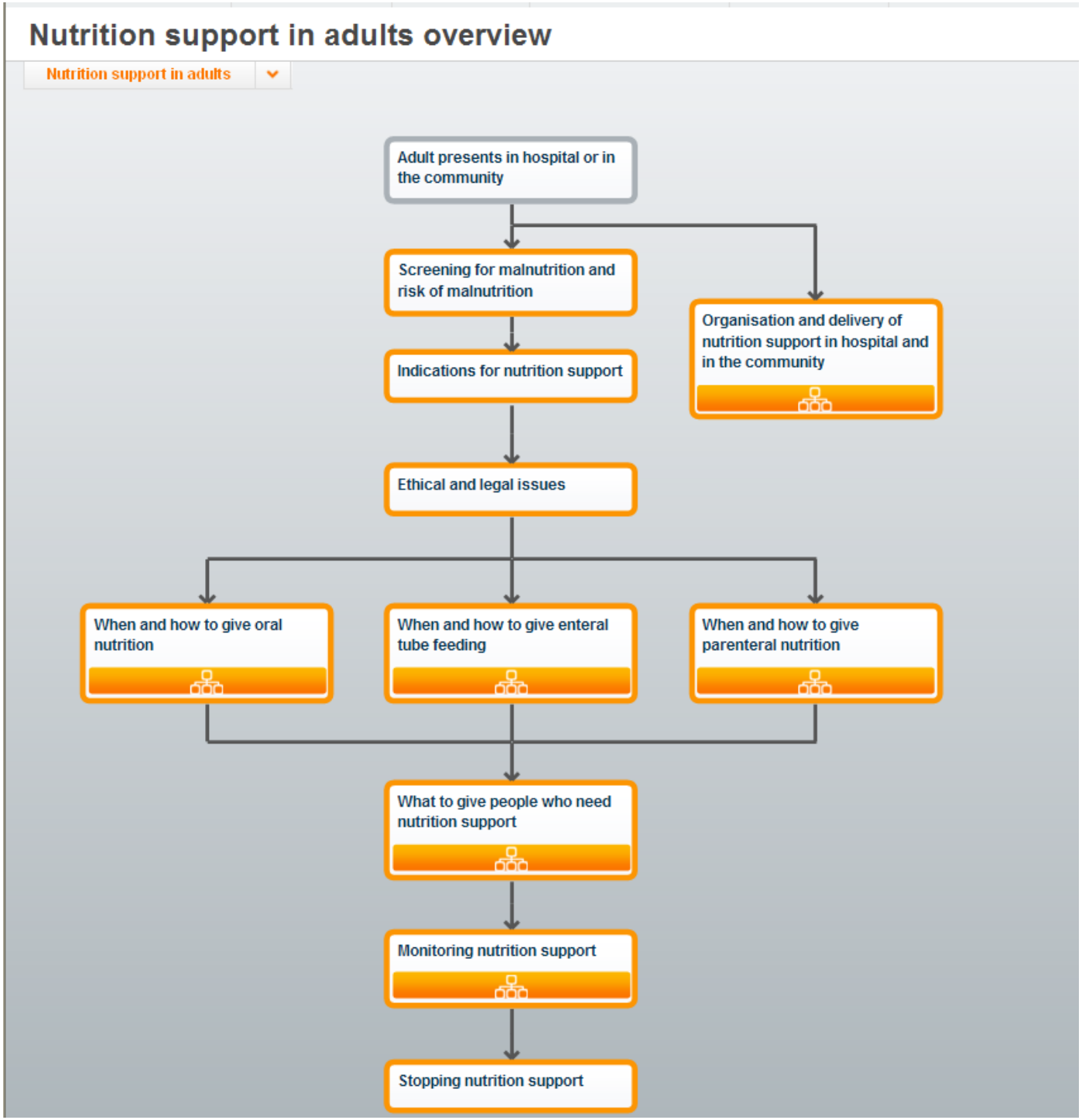
National Institute for Health and Clinical Excellence

Issue date: February 2006

Nutrition support in adults

Nutrition support in adults: oral nutrition support, enteral tube feeding and parenteral nutrition

Clinical Guideline Implementation Tools



National Institute for Health and Care Excellence, 2013
www.nice.org.uk

NHS
National Institute for
Health and Clinical Excellence

‘All acute hospitals should have a Nutrition Support Team, which may include doctors, dieticians, a specialist nutrition nurse, pharmacists, biochemists and microbiologists, and other allied healthcare professionals (for example, speech and language therapists).’

Clinical Guideline Implementation Tools

Nutrition support team

- **Vurdere indikation for parenteral ernæring**
- **Ordinere korrekt sammensat parenteral ernæring efter**
  - Grundsygdom
  - Risiko for refeeding syndrom
- **Uddanne personale med henblik på**
  - Korrekt administration af parenteral ernæring
  - Korrekt håndtering af intravenøse ernæringskatetre
- **Monitorere parenteral ernæring**
  - Behov for væske, energi, protein
  - Elektrolytsammensætning
- **Planlægge overgang til enteral ernæring**

Naylor CJ, JPEN 2004;28:251
Schneider PJ, Nutr Clin Pract 2006;21:62
Sriram K, Nutrition 2010;26:735
Nightingale J, Frontline Gastroenterol 2010; 1: 171

Nutrition support team

- **Reduceret forekomst af elektrolytdeficit**
- **Reduceret forekomst af katetersepsis**
- **Øget konvertering til enteral ernæring hvor mulig**

Keohane P, Lancet 1993; 17: 1388
Goldstein M, JPEN 2000; 24: 323
Newton R, Nutrition 2001; 17: 347
Naylor C, JPEN 2004; 28:251
Sutton CD, Clin Nutr 2005; 24: 220
Kennedy JF, Nutrition 2005; 21: 1127
Martinez MJ, Nutr Hosp 2006;21:657
Fraher MH, J Hosp Infect 2009;73:129

NST på Salford Royal

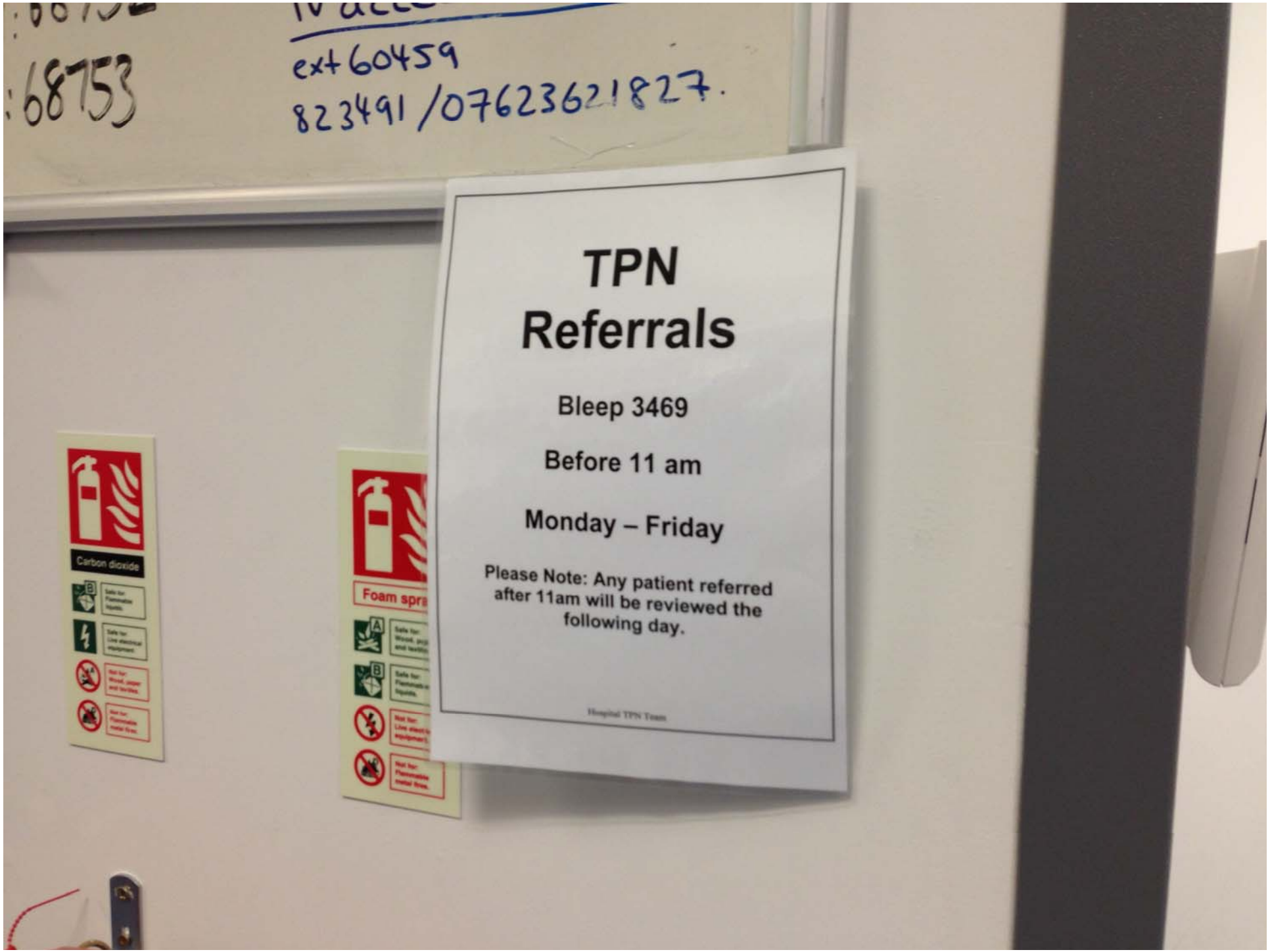
- **Nutrition nurse specialist**
- **Consultant gastroenterologist**
- **Clinical dietician**
- **Clinical pharmacist**

- **Collaboration with**
  - IV access team
  - Endoscopy unit
  - Microbiology

Specialist nutrition support nurse

- **minimise complications related to enteral tube feeding and parenteral nutrition**
- **ensure optimal ward-based training of nurses**
- **ensure adherence to nutrition support protocols**
- **support coordination of care between the hospital and the community**

National Institute for Health and Care Excellence, 2013
www.nice.org.uk


:68753
ext 60459
823491 /07623621827.
TPN
Referrals
Bleep 3469
Before 11 am
Monday – Friday
Please Note: Any patient referred after 11am will be reviewed the following day.
Carbon dioxide

TPN PRESCRIPTION CHART

Normally to be filled in by Nutrition Team

Salford Royal NHS
NHS Foundation Trust
University Teaching Hospital
safe • clean • personal

Ward ..... Chart Number .....

Start date .....

Patient Name.....

Hospital Number.....

NHS Number.....

- TPN must not be reconnected if disconnected.
- The date on the TPN bag must be checked. The prescription for that date must be signed on this chart before TPN is set up. TPN should be set up preferably early evening.
- Concentrated TPN is for infusion via a central or PICC line only.
  More dilute TPN can be given safely via peripheral / mid-lines as well as via central lines.
  TPN must never be infused into a vein in the hand.
- This prescription lists contents of each whole bag of TPN, including electrolytes such as potassium.
- Blood test results may be needed by 16:00 (routine), or 10:00 the same day (early / urgent). Urgent samples must be taken early (07:00), brought to the laboratory immediately, and marked as urgent.

DATE TPN bag intended for							
NITROGEN Vamin g							
TOTAL (non-protein) KCal							
GLUCOSE KCal							
FAT KCal							
PHOSPHATE mmol							
SODIUM mmol							
POTASSIUM mmol							
CALCIUM mmol							
MAGNESIUM mmol							
ADDITRACE ml	10	10	10	10	10	10	10
SOLIVITO ml	10	10	10	10	10	10	10
VITLIPID adult ml	10	10	10	10	10	10	10
BAG VOLUME ml							
IV Route: **C only** or **P/C**							
VOLUME to INFUSE ml							
INFUSION PERIOD hr							
DOCTOR SIGN & PRINT NAME							

TPN administration: please check prescription signed by doctor; correct date on bag; correct rate; correct iv route ie central line/PICC only (**C**) or safe for peripheral/mid line as well as central line (**P/C**); and blood test arranged if needed

Date Commenced							
Time Commenced							
Print & Sign (Nurse 1)							
Print & Sign (Nurse 2)							
TPN blood test due							

Early (**E**): TPN blood profile results needed by 10:00 Routine (**R**): TPN blood profile results needed by 16:00


MANUAL
CAM 1

Take-home: Parenteral ernæring

- **Tværfaglig vurdering af indikation**
  - Ernæringsmæssig risiko, tidslinje
  - Enteral vs parenteral ernæring
- **Optimal parenteral ernæring**
  - Risiko for refeeding syndrom
  - Central vs perifer IV adgang
  - Hygiejne
  - Monitorering
- **Exit strategi**

Vurdering og opfølgning ved PEG

The provision of a percutaneously placed enteral tube feeding service

Gut 2010;**59**:1592–1605. doi:10.1136/gut.2009.204982

David Westaby,[1] Alison Young,[2] Paul O'Toole,[2] Geoff Smith,[1] David S Sanders[3]

Percutaneous endoscopic gastrostomy (PEG) feeding

BMJ | 15 MAY 2010 | VOLUME 340

Matthew Kurien,[1] Mark E McAlindon,[2] David Westaby,[3] David S Sanders[2]

0148-6071/07/3103-0205$03.00/0
JOURNAL OF PARENTERAL AND ENTERAL NUTRITION

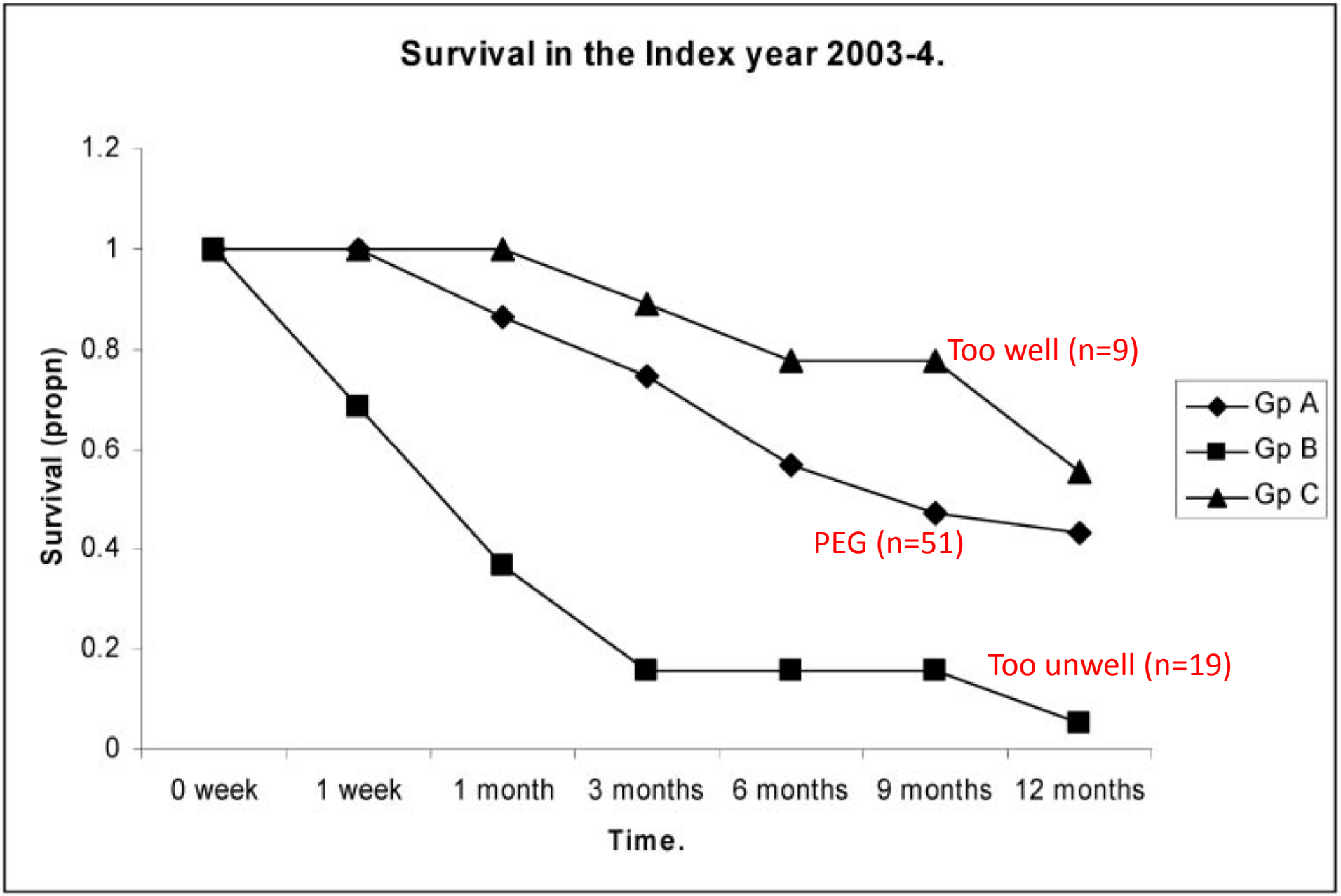
Vol. 31, No. 3
Printed in U.S.A.

Original Communications

Assessment by a Multidisciplinary Clinical Nutrition Team Before Percutaneous Endoscopic Gastrostomy Placement Reduces Early Postprocedure Mortality

I. Tanswell, MBChB*; D. Barrett, RGN*; C. Emm, BSc†; W. Lycett, BSc‡; C. Charles, MRSLT§; K. Evans, MD‖; and S. D. Hearing, MD*

*From the Departments of *Gastroenterology, †Dietetics, ‡Pharmacy, §Speech and Language Therapy, and ‖Chemical Pathology, Staffordshire General Hospital, Stafford, United Kingdom*



Tanswell I, JPEN 2007;31:205

Assessment for Percutaneous Endoscopic Gastrostomy Tube

Salford Royal NHS Foundation Trust — University Teaching Hospital

Date request received in endoscopy: **Date of Assessment:**

Patient Information: Date of Admission:

Name: Ward: Age:

Hospital Number: NHS Number:

Date of Birth: Referring Consultant:

Medical History:

☐ Stroke ☐ Asthma / COPD ☐ Diabetes ☐ Vascular Disease

☐ Neurological Disorder ☐ Gastric Surgery ☐ Dementia ☐ Head / neck Injury

☐ Heart Disease / MI ☐ Other - Please Specify

Reason for Admission:

Assessment:

Height : Weight: BMI:

☐ Salt Assessed ☐ Dietetic review ☐ Poor oral intake/NBM ☐ NG Fed ☐ > than 3 NG tubes

Level of Consciousness:

☐ Alert ☐ Drowsy ☐ Orientated ☐ Confused

☐ Patient able to open mouth on command

Respiratory:

☐ Not on Oxygen ☐ On Oxygen ☐ Tracheostomy ☐ Ventilated

Anticoagulant: ☐ Warfarin ☐ Tinzapirin (Prophylactic) ☐ Tinzapirin (Therapeutic) ☐ Aspirin

Consent: Does patient have capacity?

Yes ☐ Consent form 1

No ☐ Capacity Assessment ☐ Best Interest documentation ☐ Consent form 4

☐ PEG Indicated ☐ PEG not Indicated (specify reason)

Completed By:

Comorbiditet

Risikovurdering

Samtykke

ELSEVIER

Nutrition 21 (2005) 1071–1077

NUTRITION

www.elsevier.com/locate/nut

Applied nutritional investigation

Prospective, randomized, controlled, single-blind trial of the costs and consequences of systematic nutrition team follow-up over 12 mo after percutaneous endoscopic gastrostomy

Fiona Scott, S.R.D.[a], Roger Beech, Ph.D.[b], Fiona Smedley, S.R.D.[a], Lynne Timmis, S.R.N.[a], Elizabeth Stokes, Ph.D.[b], Peter Jones, Ph.D.[c], Christine Roffe, M.D.[d], and Timothy E. Bowling, M.D.[a,*]

[a] *Department of Gastroenterology, University Hospital of North Staffordshire, Stoke-on-Trent, Staffordshire, United Kingdom*
[b] *Centre for Health Planning and Management, Keele University, Keele, Staffordshire, United Kingdom*
[c] *Department of Mathematics, Keele University, Keele, Staffordshire, United Kingdom*
[d] *Department of Geriatric Medicine, Keele University, Stoke-on-Trent, Staffordshire, United Kingdom*

1 års follow-up efter PEG

- **Randomisering til**
  - Follow-up ved NST (n=47)
  - Standard follow-up (n=54)
- **Patienter i NST-gruppe**
  - Kortere indlæggelsestid
  - Færre genindlæggelser
  - PEG fjernet tidligere hvis relevant

Scott F, Nutrition 2005; 21: 1071

Take-home: PEG

- **Patientvurdering ved henvisning**
  - Evaluering af indikation
  - Klargøring til procedure
- **Koordinering med endoskopisk afsnit**
- **Follow-up**
  - Besøg første post-procedure dag
  - Ugentligt besøg efter anlæggelse
  - Planlægning af udskrivning
  - Follow-up besøg
- **Personaleuddannelse**

Resumé

- **Guidelines og omsorg**
- **Operationelle guidelines for klinisk ernæring**
  - Trinvis ernæringsterapi
  - Refeeding syndrom
- **Nutrition support team**
  - Ordination og monitorering af parenteral ernæring
  - Vurdering og opfølgning ved henvisning til PEG sonde


END