REFERENCES

1. *Aliment Pharmacol Ther.* 2008 Aug 1;**28**(3):294–303.
2. *Cadiovasc Intervent Radiolo.* 2011 Feb;**34** Suppl 2:S210–3.
3. *Eur J Gastroenterol Hepatol.* 2014 Aug;**26**(8):846–52.

PWE-108 PARENTERAL NUTRITION ASSOCIATED CATHETER-RELATED BLOODSTREAM INFECTIONS: DOES DELAYED REPORTING BLOOD CULTURES IMPACT ON CLINICAL MANAGEMENT?

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Aim This project aimed to evaluate the time taken for formal reporting of blood culture results, the associated impact of this on prescribing appropriate antibiotic therapy and defining the period of starvation whilst PN is withheld for patients with catheter related bloodstream infections (CRBSI)

Method Clinical data were retrospectively collected from electronic and paper records for patients with Type 1 intestinal failure diagnosed with CRBSI outside of an intestinal failure unit at a single centre from April 1 st 2016 to March 31 st 2017. Data were collected on clinical presentation, co-morbidities, time for blood cultures to be reported and the impact this had on antibiotic and parental nutrition prescribing.

Results 44 patients with CRBSI were evaluated. Male: Female ratio was 29:15 with a median age of 61 years. The median Charlson co-morbidity index for this cohort was 3. The indications for PN are shown in figure 1.

Abstract PWE-108 Figure 1 Indications for Parental Nutrition

The median Modified Early Warning Score (MEWS) at presentation with each infection episode was 4. All patients had central line cultures taken of which 64% (28/44) were positive. 73% (32/44) of patients also had peripheral blood cultures taken and 47% (15/32) were positive. The most frequent organism cultured was streptococci. The median duration for blood cultures to be initially reported was 24 hours and a total duration of 72 hours for antibiotic sensitivities to be reported. Blood culture results led to changes in clinical management in 66% (29/44) of cases-PN being restarted or antibiotics changed.

The median time for the correct organism-specific antibiotic to be prescribed from initial suspected infection episode was 48 hours. PN was withheld for a median of 72 hours in patients who were subsequently found to have negative blood cultures.

During the time period, 300 patients with type 1 intestinal failure received parenteral nutrition via a central venous catheter. 14 episodes of line infection were recorded in 3854 catheter days giving an infection rate of 3.6/1000 catheter days. 68% (30/44) of patients had a diagnosis of infection other than CRBSI-67% (20/30) of these patients did not meet sepsis parameters and therefore PN could have been continued.

Discussion These data show that where patients receiving PN present with a suspected CRBSI there is a considerable delay before they receive organism-specific antibiotic therapy, or are able to restart PN where this has been withheld. We also found that a significant proportion of patients did not have CRBSI and in many of these cases PN was unnecessarily withheld.

The CRBSI rate in this group are similar to other reported studies.

Further work is needed to examine the impact of diagnostic delays on clinical and nutritional outcomes as well as exploring the potential role of new technologies such as point of care testing on diagnostic and treatment times for CRBSI

Conflicts of interest

None declared

PWE-109 TOPICAL MAGNESIUM THERAPY TREATS HYPOMAGNEAEMIA IN SOME ILEOSTOMY PATIENTS

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Introduction Patients with a high output ileostomy often have hypomagnesaemia. Oral magnesium therapy may be unsuccessful. Topical magnesium therapy may offer a novel mode of replacement. This phase II clinical study using BetterYou magnesium oil spray primarily aimed to determine if the spray will maintain or increase serum magnesium in these patients.

Methods Outpatients with an ileostomy formed more than 6 months prior to inclusion and having chronic hypomagnesaemia (serum magnesium level less than <0.66 mmol/L) at enrolment and either:

(a) a further outpatient serum magnesium (Mg^{+2}) level <0.66 mmol/L in the last 3 months, or

(b) needing regular intravenous magnesium infusions at least once every 6 weeks for more than 18 weeks, were recruited.

Exclusion criteria included severe hypomagnesaemia (<0.25 mmol/L), diuretic use, and medication alterations (including supplements and magnesium infusions) within 4 weeks of enrolment.

Recruits applied 10 sprays twice daily for 6 weeks, delivering a topical elemental magnesium dose of 150 mg/day. Serum and whole cell Mg^{+2} levels were measured at enrolment, and at weeks 1, 3 and 6. Vitamin D levels were measured at enrolment; 24 hour urinary magnesium levels were measured at enrolment and week 6.

Treatment response is defined as a serum Mg^{+2} level rise >0.10 mmol/L at week 6, or the avoidance of a planned magnesium infusion during the trial without a fall in serum Mg^{+2} . Patients with serum Mg^{+2} <0.25 mmol/L or requiring additional magnesium supplementation during the study were withdrawn.

Results 7 patients entered the study. 6 patients completed it; 1 was withdrawn at week 4 due to hospitalisation for Crohn's

disease. All 6 patients had normal enrolment vitamin D levels (>45 nmol/L), and 5 of 6 had 24 hour urinary magnesium levels below the minimum detection limit (<0.28 mmol/L).

1 of the 6 patients avoided their planned six-weekly magnesium infusion, maintaining a stable serum Mg^{+2} level (0.59 mmol/L at enrolment, 0.62 mmol/L at week 6) and increased 24-urinary magnesium output. 2 of the remaining 5 patients were treatment successes, with a serum Mg^{+2} rise of 0.27 and 0.13 respectively. No patient had a fall in serum Mg^{+2} of greater than 0.07 mmol/L between enrolment and week 6.

Serum and whole cell Mg^{+2} correlation is strong and near linear (Pearson's $r=0.92$, $p<0.01$). All 6 patients complained of muscle cramping at enrolment; 5 reported significant improvement or complete resolution of cramping by week 3.

Conclusions 3 of 6 patients were treated successfully with BetterYou magnesium oil spray. Serum magnesium is a reliable surrogate for whole cell magnesium.

PWE-110 UNVETTED PIG VERSUS PEG SERVICE WITH NUTRITION SUPPORT TEAM. HAVE WE IMPROVED MORTALITY?

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Introduction The 2004 NCEPOD report highlighted the high 30 day mortality following PEG (percutaneous endoscopic gastrostomy) insertion secondary to inappropriate patient selection[1]. This led to the 2010 BSG guidelines which recommended that a designated nutrition support team (NST) should provide a framework for patient selection to reduce unsuitable patients receiving PEGs[2].

Prior to 2013 in Stockport NHS Foundation trust PIGs (per-oral image-guided gastrostomy) were inserted or patients referred to another trust for PEG placement. There was no formalised referral or screening process. Subsequently a nutrition team was appointed with inpatient assessment of patients and MDT for complex cases.

Our Aim was to assess whether the implementation of a nutritional team PEG service reduced 30 day all-cause mortality.

Methods Retrospective analysis of electronic patient records for 30 day all-cause mortality for all PIG and PEG insertions between 2013 and 2017. Statistical analysis was performed using chi-squared.

Results 48 patients (2 excluded as paediatric case and no notes available) had a PIG inserted without formal nutrition team review and 135 patients had PEG following nutrition nurse or MDT assessment. The 2 groups were similar with an average age of 79 years (PIG) and 76 years (PEG) and the majority inserted for stroke (62% PIG and 50% PEG). 30 day mortality on the non-vetted PIG group was 17.4% compared to 5.2% in the PEG group. This was statistically significant with $p=0.0048$

Conclusions For the unassessed PIG service mortality was similar to that detailed by the NCEPOD report, demonstrating that despite this and BSG guidelines attitudes towards PEG/PIG insertion among non-specialists have not changed since 2004.

By introducing an NTS and PEG service mortality has reduced significantly. With an ever increasing ageing population, trends in PEG placement are rising[3]. It is a necessity to ensure that patients are being appropriately assessed to prevent futile procedures.

Abstract PWE-110 Table 1

YEAR	PIG			PEG		
	Number	Mortality (<30 days)	Average age	Number	Mortality (<30 days)	Average age
2013	11	0	79	0	X	x
2014	23	5 (21.7%)	78	18	1 (5.6%)	69
2015	12	3 (25%)	80	26	1 (3.8)	72
2016	0	x	x	46	1 (2.2%)	76
2017	0	x	x	45	4 (8.8%)	81
ALL	46	8 (17.4%)	79	135	7 (5.2%)	76

REFERENCES

1. Ponsky JL. *Percutaneous Endoscopic Gastrostomy* 2004;**719**:901–4. doi:10.1016/j.gassur.2003.12.002
2. Westaby D, Young A, O'Toole P, *et al.* The provision of a percutaneously placed enteral tube feeding service. *Gut* 2010;**59**:1592–605. doi:10.1136/gut.2009.204982
3. Mendiratta P, Tilford JM, Prodhon P, *et al.* Trends in percutaneous endoscopic gastrostomy Placement in the Elderly From 1993 to 2003. *Am J Alzheimer's Dis Other Dementias* 2012;**27**:609–13. doi:10.1177/1533317512460563

PWE-111 A PILOT OF THE MALNUTRITION UNIVERSAL SCREENING TOOL ('MUST') IN A GENERAL OUTPATIENT DEPARTMENT

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Introduction Early identification of patients who are (or are at risk of becoming) malnourished using a nutritional screening tool is vital to provide timely and effective nutritional interventions. NICE guidelines in 2006 ⁽¹⁾ recommend screening for malnutrition using a validated tool in all adult patients on admission, and all outpatients at a first clinic appointment. We introduced 'MUST' in 2012 for all adult inpatients. Initial attempts to launch the tool across the outpatient department met with little success due to time taken to complete paperwork and perceived challenges of calculating the score. We modified the process in March 2017 to utilise the online tool available on the BAPEN website ⁽²⁾.

Methods 9 consultant-led clinics were chosen across gastroenterology, renal, colorectal surgery and respiratory. The BAPEN website was downloaded onto iPads and the nursing staff entered the relevant anthropometric measurements. A pre-printed coloured sticker (green, yellow, red) was placed in the notes detailing the 'MUST' score and recommended actions. Clinics from the first 3 weeks of the pilot were reviewed to determine compliance.

Results 382 patients attended clinic across 3 weeks. 76 sets of notes were selected at random. 11 sets were unavailable leaving 64 for review. A sticker was present in 44/64 (69%) of notes, with no sticker in the remaining 31%.

Abstract PWE-111 Table 1 Distribution of 'MUST' score

MUST score	Number (percentage) of patients
Score 0 (green sticker)	33/44 (75%)
Score 1 (yellow sticker)	7/44 (16%)
Score 2+(red sticker)	4/44 (9%)