

(FU-OGD) within 8 weeks for all gastric ulcers to exclude malignancy, internationally this recommendation is controversial. This audit examined the impact of this NICE guideline.

Methods All patients with a first endoscopic diagnosis of gastric ulcer between January 2012 and September 2013 at this large teaching hospital were included. Patients with known gastric ulcers prior to the study period or those referred for tertiary assessment were excluded. Patient demographics, data on endoscopic appearance and histological reports were recorded. We analysed endoscopic assessments, compliance with NICE guidance and the malignancy yield.

Results 432 patients (53% male) with a mean age of 65 years presented with a gastrointestinal bleed (38%), anaemia (13%), dyspepsia (18%) or other symptoms (31%). 142 patients were not biopsied initially (73% GI bleed, 6% anticoagulation, 21% no reason). Of these 96 received FU-OGD for biopsies after a median of 7 days. 290 patients had an average of 4.8 biopsies taken on index endoscopy. Of these 194 underwent repeat OGD after a median of 70 days. Only 33% underwent FU-OGD within the recommended time frame. Reasons for not undergoing FU-OGD were failure to request (10%), deemed medically inappropriate (98%), death before FU-OGD due (12%), patient non-attendance (24%), malignancy on 1st biopsy (9%) and unknown (26%). Ulcer healing was found in 236 patients. Gastric neoplasia was found in 27 patients (19 adenocarcinomas, 2 cases of dysplasia, 5 lymphomas, 1 melanoma) leading to a diagnosis of malignancy in 6% of patients with gastric ulcers. Of these 25 (93%) were diagnosed on first biopsy. After excluding those patients without follow-up, the cancer yield of FU-OGD after initially benign biopsy was 2 of 225 patients (0.9%).

Conclusion In this large cohort of patients with gastric ulcers 6% were found to have malignant disease. Of these over 90% were diagnosed with first biopsy, highlighting the need for all gastric ulcers to be biopsied. For many patients FU-OGD was deemed inappropriate. A high non-attendance rate was also noted, which may relate to the uncomfortable and invasive nature of endoscopy. While rapid FU-OGD for biopsies was achieved in those with no initial biopsies, many patients waited longer than the recommended 8 weeks after initial benign biopsies. However, the cancer yield of FU-OGD after benign biopsies remains low. Strategies to reduce the burden of FU-OGD for both patients and the health service would be highly desirable.

Disclosure of Interest R. Cochrane: None Declared, S. Thanaraj: None Declared, A. Sainsbury: None Declared, C. Selinger Grant/research support from: Ferring, Nycomed, Shire, Warner Chilcott.

Small bowel and nutrition free papers

OC-022 DEVELOPMENT AND OUTCOME OF INTESTINAL FAILURE IN CROHN'S DISEASE: 3 DECADES OF EXPERIENCE FROM A NATIONAL REFERRAL CENTRE

E Nixon*, P Allan, S Sidhu, A Abraham, A Teubner, G Carlson, S Lal. *Intestinal Failure Unit, Salford Royal NHS Foundation Trust, Salford, UK*

10.1136/gutjnl-2014-307263.22

Introduction Intestinal Failure (IF) is a rare complication of Crohn's disease (CD) which carries significant morbidity, for which there is a relative paucity of data. We describe a large series of patients with CD and IF and evaluate factors associated with IF development.

Methods This was a retrospective study from a prospectively maintained database of patients referred to a national IF centre.

Patients with CD were identified if on home parenteral nutrition (PN) for at least 12 months in the period between 1980–2011, and case notes were reviewed. Severe IF was defined as onset of IF within 15 years of CD diagnosis. Comparison of frequencies was performed using the Chi-squared test. Multivariate logistic regression models were used to identify independent associated factors after univariate analysis.

Results 78 patients were identified. The median time from CD diagnosis to commencing PN was 120 (12–552) months. Median time from CD diagnosis to first surgery was 36 (0–312) months. Patients underwent a median of 3 (1–7) small bowel (SB) resections prior to commencing PN, and the median remnant SB length was 130 (40–375) cm. Patients underwent a total of 312 operations but data were unavailable for 3 of these. The primary indication for the first surgery was stricturing (61.5%), followed by penetrating (23.1%) and inflammatory (15.4%) disease. Operative complications were higher in patients undergoing emergency (37/85; 43.5%) vs. elective (53/224; 23.7%) procedures ($p = 0.001$) and in surgeries performed outside (87/255; 34.1%) vs. within (3/54; 5.6%) the IFU ($p < 0.0001$).

234 subsequent operations were undertaken after the first, but indication data were missing in 7 operations; operative complications were the primary indication for surgical intervention in (76/227) 33.5% of cases after the first surgery. In multivariate analysis, severe IF was associated with surgical complications ($p = 0.003$), higher number of SB resections ($p = 0.005$) and earlier age of CD diagnosis ($p = 0.005$).

25/78 (32.1%) patients achieved nutritional autonomy during a median follow-up of 36 (12–376) months after commencing PN. There were 68 documented catheter infections (0.42 infections/1000 catheter days) in this patient cohort.

9 patients died during follow-up as a result of liver disease ($n = 3$), complex CD/overwhelming sepsis ($n = 2$) or other causes ($n = 4$).

Conclusion Recurrent surgeries with operative complications are significant factors leading to severe IF. These are important considerations in guiding therapeutic decisions in CD, given the morbidity associated with chronic IF.

Disclosure of Interest None Declared.

OC-023 FACTORS INFLUENCING MORTALITY FOLLOWING GASTROSTOMY INSERTION

RE Andrews*, M Kurién, JS Leeds, J Grant, ME McAlindon, DS Sanders. *Gastroenterology, Royal Hallamshire Hospital, Sheffield, UK*

10.1136/gutjnl-2014-307263.23

Introduction High mortality rates have previously been reported following gastrostomy insertion, particularly among certain patient groups (e.g., dementia). With the increasing use of prophylactic gastrostomy for head and neck cancer (HNC), our group aimed to examine survival in this cohort compared to other referral indications and assess risk factors.

Methods Gastrostomy insertions were examined from two hospitals in Sheffield between 2004–2013. Data was prospectively collected from all referred patients including demographic data, biochemical parameters, referral indications and gastrostomy type. Statistical analysis was performed with Chi-squared or Fishers exact tests.

Results 1733 patients were included (1004 male, mean age=65). 30 day and 1 year mortality was 9.66% and 44.98% respectively. Indications for gastrostomy included; HNC ($n = 591$), neurological disease ($n = 429$), dysphagic stroke ($n =$

393), dementia (n = 9) and other (n = 311). The lowest mortality was seen in patients with HNC (30 day mortality = 5.2%, 1 year mortality = 32.6%). In comparison, 30 day mortality in all other groups was significantly higher (8.47% in neurological diseases, 15.86% in dysphagic stroke, 33.3% in dementia and 11.25% in 'other' indication, $p < 0.01$). Mortality was also significantly higher at one year ($p < 0.01$). There was no significant difference in mortality when comparing radiologically inserted and percutaneous endoscopic gastrostomies. Higher mortality rates were seen in patients aged 60 years or above at 30 days (OR 2.439 (1.666 – 3.731) $p < 0.0001$) and also at 1 year (OR 3.140 (0.268 – 0.600) $p < 0.0001$). Albumin less than 30 g/L was also associated with significantly higher 30 day (OR 4.486 (3.067 – 6.561) $p < 0.0001$) and 1 year mortality outcomes (OR 2.319 (1.830 to 2.939) $p < 0.0001$). In accordance with recent published data, our findings would support an elevated CRP (>5 mg/L) being a factor associated with 30 day mortality (OR 8.930 (1.199 to 66.51) $p = 0.006$).

Conclusion Referral indication for gastrostomy significantly impacts 30 day and 1 year mortality outcomes, with lowest rates demonstrated in patients with HNC. Identification of factors associated with mortality as seen in this study could help improve patient selection and be of relevance in the decision making process for gastrostomy.

Disclosure of Interest None Declared.

OC-024 PREDICTING 30-DAY MORTALITY FOLLOWING PEG INSERTION: EXTERNAL VALIDATION OF A PREVIOUS SCORING SYSTEM AND ANALYSIS FOR ADDITIONAL PREDICTIVE FACTORS

CS MacLeod, R McKay, D Barber, AW Mckinlay, JS Leeds*. *Gastroenterology, Aberdeen Royal Infirmary, Aberdeen, UK*

10.1136/gutjnl-2014-307263.24

Introduction Percutaneous endoscopic gastrostomy (PEG) insertion is a well-established technique for providing long-term enteral nutrition. However concerns have been raised regarding the high 30-day mortality associated with PEG, and the related ethical implications of patient selection. Accordingly, a previous predictive tool was developed using age and serum albumin level but was created on a relatively small cohort. External validation of the score was performed in the same region but has not been outside of this area. This study aimed to externally validate this previous scoring system and also try to identify any further predictors of 30-day mortality in a larger cohort.

Methods Retrospective review of all gastroscopy reports documenting PEG insertions between January 2001 and January 2012 in our centre was undertaken. Hospital electronic systems were used to determine patient demographics, laboratory results and outcome at 30 days. In patients with newly inserted PEG tubes, the scoring system was applied and assessed using receiver operating curve analysis to determine the discriminative capacity. Furthermore, univariate and multivariate binary logistic regression analyses were performed using the current database to identify additional predictors of 30-day mortality.

Results The PEG database included 1373 patients, of which 808 were new PEG insertions and suitable for analysis. For each increasing gradation of the scoring system, mortality rose with 4% of those scoring zero dying compared to 50% scoring three. An area under the ROC curve of 0.686 (95% confidence interval 0.635–0.737) indicated reasonable discriminative capacity. Multivariate analysis demonstrated that age ≥ 60 years

(OR = 2.097 [$p = 0.016$]), serum albumin levels of 25–34 g/l (OR = 2.447 [$p = 0.001$]) or < 25 g/l (OR = 6.769 [$p < 0.001$]), C-Reactive Protein ≥ 10 mg/l (OR = 2.713 [$p = 0.009$]) and lymphocyte count of $< 1.5 \times 10^9/l$ (OR = 2.016 [$p = 0.004$]) increased the odds of 30-day mortality, whilst inpatient PEG placement decreased the risk of death (OR = 0.529 [$p = 0.005$]).

Conclusion The previous scoring system demonstrated reasonable predictive proficiency but the area under the ROC curves were not > 0.8 . The recognition of further predictors of 30-day mortality allows for remodelling of the score which may improve the accuracy. However, future prospective, multicentre studies with defined outcomes are necessary to improve data collection. Additionally, more information is needed about cause of 30-day mortality and importantly quality of life following PEG insertion.

Disclosure of Interest None Declared.

OC-025 SURVIVAL OF PATIENTS WITH PALLIATIVE INOPERABLE GASTROINTESTINAL OBSTRUCTION DUE TO MALIGNANCY TREATED WITH HOME PARENTERAL NUTRITION

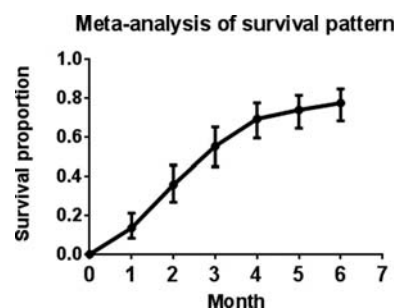
¹M Naghibi*, ¹M Stroud, ¹TR Smith, ²M Elia. ¹Gastroenterology, University Hospital Southampton, Southampton, UK; ²Institute of Human Nutrition, University of Southampton, Southampton, UK

10.1136/gutjnl-2014-307263.25

Introduction There is controversy about the indications for home parenteral nutrition (HPN) during the palliative phase of malignancy causing inoperable gastrointestinal obstruction (IBO). This is partly due to uncertainty about the survival of patients. This study aimed to establish the survival characteristics of these patients in order to inform decisions about the use of HPN.

Methods A systematic review with meta-analyses were carried out in accordance with the Cochrane protocol for adult patients (>18 years) with a confirmed diagnosis of malignancy causing IBO (in at least 80% of the patients) being treated with palliative HPN. A literature search was carried out in April 2013 using Medline, EMBASE, CINALH and Web of knowledge. Whenever possible, individual patient data were extracted to allow meta-analyses.

Results 11 studies involving 420 patients, met the inclusion criteria. 3 studies reported individual patient data, 4 studies represented this using Kaplan Meier, one study using scatter plot and 3 studies only reported averages for survival length. The extraction procedure which gathered individual information on



Abstract OC-025 Figure 1 Random effects meta-analyses of survival at monthly intervals up to 6 months (n=220 patients; 8 studies). The bars represent the 95% confidence intervals