commonly due to blood loss from lesions in the gastrointestinal (GI) tract and malabsorption, accounting for 4–13% of referrals to gastroenterologists. In men over the age of 50 years and postmenopausal women there is established data on the incidence of GI pathologies causing IDA but such data for men under 50 years of age is not as robust. We carried out a retrospective analysis of outcomes of investigations for IDA in men under the age of 50 years over a period of 10 years in our hospital serving about 325,000 population.

**Methods** Through the audit and clinical code department all male patients between 17 and 50 years of age investigated for IDA from 2000-2010 were identified retrospectively. The criteria used for diagnosis of IDA included haemoglobin level below the lower limit of normal, low ferritin and corresponding abnormalities of red cell indices. Data on outcome of investigations for IDA was collected from patient case notes and endoscopy, radiology and pathology records.

**Results** 52 patients were identified over the study period. The median haemoglobin was 9.3g/dl. The median age of the patients was 44 years. 44/52 (85%) had investigations recorded. 18/52 (33%) had gastroscopy (OGD) only. 26/52 (48%) had both OGD and colonic investigations. 7/52 (13%) had further investigations following normal bi-directional endoscopy including bone marrow, small bowel barium studies, capsule endoscopy and abdominal ultrasound with none of these additional investigations yielding further diagnostic information. With regards to colonic investigations 21/26 (81%) had colonoscopy, 3/26 (11%) had barium enema plus flexible sigmoidoscopy and 2/26 (8%) had CT scan.

The findings of OGD were normal investigation 25/44 (57%), oesophagitis 5/44 (12%), peptic ulcer disease (PUD) 4/44 (9%), hiatus hernia 4/44 (9%), oesophageal cancer 1/44 (2%) and coeliac disease 2/25 patients with duodenal biopsies at OGD.

The findings of lower GI investigations were normal investigations 16/29 (55%), haemorrhoids 5/29 (17%), inflammatory bowel disease (IBD) 3/29 (10%), polyps 2/29 (7%), colorectal cancer 2/29 (7%) and diverticulosis 1/29 (4%).

Conclusion Significant findings including PUD, malignancy and IBD constituted 19.2%. Malignancy accounted for 5.8% and this was comparable with previously reported prevalence of GI malignancy in patients with IDA (6-13%). In addition a proportion of investigations also yielded other diagnosis including oesophagitis and coeliac disease. Therefore it will be justified to investigate men under 50 years with IDA similarly to those over 50 years and postmenopausal women as suggested in most international guidelines

Disclosure of Interest None Declared.

# PWE-191 IS GASTROPEXY AN ALTERNATIVE TO RADIOLOGICAL **GASTROSTOMY? A SINGLE CENTRE EXPERIENCE**

doi:10.1136/gutjnl-2013-304907.479

1,\*S S Salunke, 1D Barber, 1R McKay, 1A W McKinlay, 1J S Leeds. 1Gastroenterology, Aberdeen Royal Infirmary, Aberdeen, Aberdeen, UK

Introduction Standard inside-out PEG insertion is not always technically possible or safe especially when there is narrowing of the oesophagus or pharynx with head-and-neck or oesophageal cancers. There is also concern about tumour seeding with inside-out technique. Similarly, in some patients it is not possible to pass the standard gastroscope through to upper GI tract. Gastropexy is an alternative technique which allows insertion of a gastrostomy tube with outside-in technique and can be performed using slimmer scopes. Gastropexy has been routinely performed in our unit for some time and therefore we aimed to review the experience of Gastropexy insertion in our unit.

Methods Gastropexy placement in our unit is based upon a previously described technique using Kimberly Clark MIC introducer kit. A standard endoscopy is performed by the oral or nasal route, a site identified and the stomach secured against the anterior abdominal wall with 3 pre-loaded T-toggles which can be fastened with a locking disc. A tract is formed using a single serial dilator passed over a guidewire and a 14F balloon gastrostomy inserted through the dilator and secured. The outer sheath of the dilator will then be peeled out. All patients receive pre-procedural prophylactic antibiotics. A retrospective review of all gastropexy procedures between June 2009 and November 2012 was carried out. Patient demographics, indication, sedation requirements and complication rates were recorded.

Results 45 procedures were carried out on 42 patients (28 males, median age 63 years range 56 - 84) with a technical success rate of 95.7% for placement. Indication for placement was head-and-neck cancer (n = 34), oesophageal stricture/cancer (n = 9) and neurological (n = 2). 17% of procedures were performed under general anaesthesia as part of another surgical procedure with the remainder having conscious sedation (mean doses midazolam 3.8mg and pethidine 17.8mg). 58% of procedures were performed using a nasal/ neonatal endoscope. Of these, 62% cases had head-and-neck cancer, 31% had oesophageal cancer/stricture. One patient had a minor gastric fluid leak and one patient developed a pneumoperitoneum both of which were managed conservatively. At 7 days, 1/45 (2.2%) had a site infection and 1/45 (2.2%) had died whereas at 28 days, 5/45 (11.1%) had a site infection and 4/45 (8.8%) had died. Mortality at 1 year was 48%, with median survival of 5 months. The primary pathology in all the patients who died was head and neck or oesophageal cancer. None of the deaths were procedure related.

**Conclusion** Gastropexy is a suitable alternative in patients with difficult access and can be inserted with high success rate and low complication rates. Ideally, a randomised trial comparing gastropexy and radiological gastrostomy insertion should be undertaken.

Disclosure of Interest None Declared.

# PWE-192 DOES FIBRE REDUCE THE RISK OF CLOSTRIDIUM **DIFFICILE DIARRHOEA IN NASOGASTRIC FED PATIENTS?**

doi:10.1136/gutjnl-2013-304907.480

1.\*S Antoniou, <sup>1</sup>L Goddard, <sup>1</sup>C Pettitt, <sup>1</sup>T Orchard, <sup>1</sup>J Tyrrell-Price. <sup>1</sup>Imperial College Healthcare NHS Trust, London, UK

Introduction Tube-feeding has previously been associated with an increased risk of Clostridium difficile (C. difficile) diarrhoea.1 The absence of dietary fibre has been suggested as a possible cause, but not yet formally assessed in patients fed via a nasogastric (NG) tube. The objective was to determine if there is a difference in acquisition of *C. difficile* between fibre and fibre-free NG feeds.

Hypothesis Fibre-free NG feeds are associated with a higher rate of *C. difficile* infection than fibre containing feeds.

**Methods** This was a Retrospective Cohort Study, using data from NG-fed patients in one trust from May to November 2010.

**Results** It was found that 8 of 169 patients in the fibre-fed group had C. difficile, compared with 15 of 202 in the non-fibre fed group, equating to 4.7% and 7.4% detection of C. difficile respectively, p value 0.39. Antibiotic usage was similar in both groups. Patients who received fibre free feeds were more likely to develop diarrhoea than those receiving fibre containing feeds (p = 0.0112).

**Conclusion** The results show a trend towards fibre reducing the risk of *C. difficile* diarrhoea. However the effect appears to be subtle, as it failed to reach statistical significance despite the inclusion of over 160 patients in both groups. The previous finding of a link between fibre free NG feeding and C. difficile acquisition may have been due to increased rates of diarrhoea. Fibre reduced the risk of diarrhoea, which may reduce the apparent risk of C. difficile when compared with the fibre free group, as in the latter there is a potential for C. difficile spore shedding from asymptomatic carriers.

Disclosure of Interest None Declared.

#### REFERENCE

1. Bliss D.Z., et al. (1998). Acquisition of Clostridium difficile and Clostridium difficile-Associated Diarrhoea in Hospitalized Patients Receiving Tube Feeding. Ann Intern Med; 129: 1012-1019

# PWE-193 CHANGES IN TASTE PREFERENCE AFTER COLORECTAL **SURGERY**

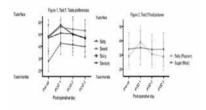
doi:10.1136/gutjnl-2013-304907.481

<sup>1</sup>P Hiotis, <sup>1</sup>S Welchman, <sup>2,\*</sup>S Lewis. <sup>1</sup>Surgery; <sup>2</sup>Gastroenterology, Derriford Hospital, Plymouth, UK

Introduction Early postoperative nutrition is of clinical benefit. However, patients are often initially reluctant to eat after surgery. Dysguesia and alterations in food preference are often reported. We conducted a study to describe perioperative changes in taste and food preference with a view to being able to optimise food choices and thus improve intake.

Methods Patients undergoing colorectal surgery were recruited. Three sets of tests were conducted, pre-operatively and on postoperative days (POD) 1, 2 & 3. In Test 1, patients were asked to rate the palatability (Horrible-Nice, using Likert scales (0-100%)) of a nutritional supplement flavoured with 'standard' concentrations of the 6 core tastes (sweet, sour, salt, bitter, spicy & savoury). In Test 2, patients were shown photos of foods representative of the core tastes and asked to rate them in terms of appeal. Test 3, snack box containing representative foods of the core tastes were rated by patients. Differences from baseline were assessed using t-tests.

**Results** 31 patients completed the study, M:F = 21:10, median age of 72 (33–82). Test 1, enhanced taste from baseline was seen on POD1 (p < 0.01) for salty, sweat & spicy taste figure 1. Test 2, only salty food (popcorn) scored higher (p < 0.01) than baseline (figure 2) all other foods scored lower. Foods representing bitter and sour exhibited the greatest decline (40.4% for gherkins, 38.7% for grapefruit). Test 3, patients rated sweat (fudge) 63%, salty (crackers) 50% best at POD 1 (p < 0.01) and sour (gherkins) 22%, spicy (Bombay mix) 16% worst. With all 3 Tests, scores reverted to baseline by POD 3.



# **Abstract PWE-193 Figure**

**Conclusion** After surgery patients rated sweat and salty snack foods greatest. This was confirmed by tests of palatability and appeal. Though while spicy and savoury palability tests scored highly patients did not find the snakes particularly desirable. Further work is required to explore patients food preferences post surgery. Disclosure of Interest None Declared.

### PWE-194 | **Randomised Study of Rigj vs Pegj in Patients at** RISK OF ASPIRATION PNEUMONIA

doi:10.1136/gutinl-2013-304907.482

1.\*S Lewis, 1A Latchford, 2T Gruning. 1Gastroenterology; 2Radiology, Derriford Hospital,

Introduction In patients at risk of aspiration pneumonia due to gastro-oesophageal reflux who require gastrojejunostomy feeding tubes, the tubes are placed either radiologically (RIGJ) or endoscopicaly (PEGJ). There is little published evidence to inform which is superior.

Methods Consecutive patients referred for long-term jejunal feeding because of high risk of aspiration pneumonia (proven GORD or pneumonia whilst being NG fed) were randomly allocated to have a RIGJ or PEGJ inserted. A Tc<sup>99m</sup> colloid study was done to determine the presence of gastro-oesophageal reflux and jejunal gastric reflux after feeding tube placement. We recorded pneumonia, death, feeding tube displacement, blockage and replacement to 90 days post placement.

Results 65 patients were randomised, 31 RIGJ and 34 PEGJ. Baseline characteristics including Barthell index were similar between groups. GORD was demonstrated by Tc99m tracer injected intragastrically in 52% but in no patient when injected jejunally.

Jejunal feeding tube and clinical complications (number).

#### **Abstract PWE-194 Table 1**

	RIGJ n = 31			PEGJ n = 34		
*p < 0.05	30days	30-90days	Total	30days	30-90days	Total
Jejunal tube fallen out of position	0	0	0	7	2	9*
Jejunal tube irreversibly blocked	3	0	3	3	2	5
Jejunal tube replaced	2	0	2	5	3	8
Blockage cleared by patient/carer	8	4	12	22	12	34*
Blockage cleared by community H/C	2	2	4	8	3	11
Blockage cleared in hospital	3	0	3	10	5	15*
Further Pneumonia	2	1	3	2	3	5
Death	2	2	4	2	1	3

**Conclusion** There was little difference in clinical outcomes between RIGJ vs PEGJ tubes for feeding patients at high risk of pneumonia. However, RIGJ tubes were considerably less prone to blockage and displacement than PEGJ tubes. Tube blockage was a major cause of frustration for patients and resource use for health care services. Replacing enteral tubes in frail patients was distressing and a significant use of health care resource. Consideration should be given to placing RIGJ in preference to PEGJ tubes.

Disclosure of Interest None Declared.

# PWE-195 OUTCOMES OF NUTRITIONAL ASSESSMENT AND **GASTROSTOMY IN PATIENTS WITH MOTOR NEURONE DISEASE (MND): A 4 YEAR EXPERIENCE**

doi:10.1136/gutjnl-2013-304907.483

<sup>1,\*</sup>T Gledhill, <sup>1</sup>V Lekharaju, <sup>1</sup>P Bliss. <sup>1</sup>Aintree University Hospitals, Liverpool, UK

Introduction Motor neurone disease (MND) is a fatal, progressive, neurodegenerative disease with a median survival from onset of symptoms of 4.32 years. No controlled trials indicate a benefit, although current guidelines recommend gastrostomy tube placement when dysphagia or weight loss occurs. Changes in our local practise occurred in 2011 in order to reduce time to referral, we assessed the outcome.

Methods We reviewed records of all patients referred with MND to the nutrition team and analysed their outcomes including nutritional assessment, decision for gastrostomy, type and survival.

Results Since 2009, 76 patients were referred for nutritional assessment in MND. Nine were excluded (5 not reviewed; 4 re-referred).

Baseline data: male 62.5%; mean age at diagnosis 63.9 years; mean body mass index (BMI) at referral 23.1kg/m<sup>2</sup>; 75% had lost weight at review with mean weight loss of 17%. Non invasive ventilation (NIV) was used in 54% of patients. Forty-four patients (66%) consented to gastrostomy tube insertion. Ten patients (15%) declined and 13% of patients were not appropriate as MND was too advanced. In four patients (6%) tube placement was not yet indicated.