Conclusion Nasogastric feeding is well tolerated in the majority (73.7%) of patients with severe AP. NG feeding should be first line, but if failing a rapid change to the NJ route instituted.

Competing interests None declared.

PMO-102 MEMBRANOUS EXPRESSION OF SULFATASE-2 IS ASSOCIATED WITH A POORER PROGNOSIS IN PATIENTS FOLLOWING PANCREATIC CANCER RESECTION

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Introduction Pancreatic adenocarcinomas are resistant to medical therapies and associated with a poor prognosis. Sulfatase 2 (SULF2) is one of two extraacellular heparan sulphate 6-endosulfatases that modulate ligand activated FGF and Wnt signalling. SULF2 expression is dramatically upregulated at mRNA levels in pancreatic cancers (NCBI GEO). We have investigated SULF2 protein expression in pancreatic adenocarcinomas, in association with clinicopathological parameters.

Methods Immunohistochemistry for SULF2 was performed on archived FFPE (Formalin Fixed paraffin Embedded) blocks from 21 resected primary pancreatic adenocarcinomas, most of which were histologically defined as ductal (19/21, 90.5%). Membranous and cytoplasmic expression of SULF2 in tumour and stromal cells were separately assessed. Additionally, immunostaining for α-Smooth Muscle Actin (α-SMA) was performed for further cell characterisation.

Results SULF2 was expressed in tumour cells in the majority of the tumours (18/21, 86%). This expression was either cytoplasmic (15/21, 61.9%), membranous (12/21, 57.1%) or both (17/21, 80.9%). Membranous positivity was found almost exclusively in tumours with low differentiated areas (11/12, p=0.007). Membranous over-expression was also associated with shorter patient survival (p=0.011). Spindle-shaped cells of desmoplastic tumour stroma showed strong cytoplasmic positivity in all tumours studied (21/21, 100%). These cells were also positive for α-SMA, a marker of activated pancreatic stellate cells. Non-neoplastic pancreas showed only focal positivity for SULF2, this involved mainly endothelial, and scattered epithelial cells of exocrine pancreas.

Conclusion SULF2 over-expression is common in pancreatic adenocarcinomas, in both the ductal cancer cells as well as the desmoplasic tumour stroma. Tumour cell membranous localisation and over expression is associated with a more aggressive tumour behaviour and poorer patient survival. SULF2 is a novel candidate biomarker in patients for pancreatic cancer, identifying those with a poorer prognosis, as well as those who may benefit from therapies inhibiting SULF2.

Competing interests None declared.

PMO-101 ENTERAL NUTRITION IN ACUTE PANCREATITIS: NASOGASTRIC OR NASOJEJUNAL?

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Introduction Enteral feeding is beneficial in patients with severe acute pancreatitis. A published series suggests 100% can be fed via the nasogastric (NG) route.

Methods 146 consecutive patients (January–December 2010) admitted with acute pancreatitis (AP) were reviewed to assess the safety and tolerance of NG feed. In all severe AP patients nutrition was initially delivered via an NG tube, if they were not absorbing a nasojugal (NJ) tube was inserted.

Results 29 patients were identified as having poor outcome. 127 (87%) patients were able to commence oral intake within 72 h of admission. 19 (13%) patients required additional enteral or parenteral nutritional support. 16 patients were commenced on NG feed but two patients needed conversion to NJ feed. Three patients were directly commenced on NJ feed but one needed conversion to parenteral feed. Only one patient had been commenced on parenteral feed prior to transfer. Need for nutritional support was a significant indicator of poor outcome; morbidity 13/19 vs 12/127 (p<0.0001) and mortality 6/19 vs 1/127 (p<0.0001).

Conclusion Enteral feeding is well tolerated in the majority (73.7%) of patients with severe AP. NG feeding should be first line, but if failing a rapid change to the NJ route instituted.

Competing interests None declared.

PMO-103 PROGNOSTIC VALUE OF POST OPERATIVE CA19-9 IN PATIENTS UNDERGOING PANCREATICODUODENECTOMY FOR PANCREATIC ADENOCARCINOMA

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Introduction Pancreatic Adenocarcinoma accounts for over 90% of Pancreatic malignancy with overall survival being <5% at 5 years. CA 19-9 is a commonly used tumour marker with levels in excess of 200 U/ml being 90% sensitive for pancreatic malignancy. Pre-
operative CA 19-9 has been used as a prognostic marker with higher levels being associated with poorer outcomes. The purpose of this study was to see if post operative CA19-9 was an independent prognostic factor.

**Methods** A retrospective analysis of a prospectively collected database from January 2005 to December 2010. Inclusion criteria was a normal preoperative bilirubin and pre and postoperative CA 19-9 measurements (n=76). The primary endpoint was death or recurrence of disease. Data were also analysed for TNM staging, resection margin status and overall survival.

**Results** 70 patients with pancreatic ductal adenocarcinoma were in the study. An elevated post operative CA19-9 (n=53) had a significantly poor mean survival of 26.8 months compared to patients with normal levels (n=57) who had a mean survival of 45.5 months (p=0.004). For patients with a postoperative value ≥200 U/ml (n=15) mean survival was 19.8 months compared with levels <200 U/ml (n=57) being 45.9 months (p=0.001). A <75% fall in post operative CA19-9 levels in comparison to preoperative levels (45 vs 25 patients) resulted in poor mean survival of 54.9 vs 45.9 months but did not reach statistical significance (p=0.218).

**Conclusion** In patients who have undergone pancreaticoduodenectomy for ductal adenocarcinoma having a normal postoperative CA 19-9 is a marker for improved outcome where as a level in excess of 200 U/ml is a negative predictive factor. A <75% fall in post operative readings of CA19-9 results in poor survival (11 months) but was not statistically significant.

**Competing interests** None declared.

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**PMO-105 THE USE OF FECAL ELASTASE IN A DISTRICT GENERAL HOSPITAL**

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**Introduction** Faecal elastase 1 (FE) is a proteolytic enzyme secreted by the acinar cells of the pancreas. Its determination is a highly sensitive and specific tubeless pancreatic function test. The 2003 BSG guidelines were compiled to minimise investigations and maximise positive diagnoses for patients with diarrhoea lasting more than 4 weeks.1 We analysed the appropriate use of the faecal elastase test and its correlation with symptoms in a large district general hospital.

**Methods** This retrospective study included all patients who had a FE requested from April 2009 to March 2010. Data were analysed for indication, symptoms, outcome of the test, follow-up, other investigations and the use of creon.

**Results** Over a period of 1 year, 121 patients had a FE requested. Patient notes and laboratory information was only available for a total of 101 patients. Data were collected from these notes for further analysis. 19 patients (19%) had pancreatic insufficiency with low FE levels (ranging <15–144). 82 patients had normal FE levels (>500). In patients with a low FE levels, 12 patients had diarrhoea (63%), steatorrhoea (21%), abdominal pain (26%), weight loss (47%), alcohol history (15%), history of pancreatitis in (53%) and none of these patients had evidence of abdominal distention, flatulence or offensive stools. 58% of the low FE group had treatment with creon. A logistic regression analysis was performed on three symptoms; diarrhoea, steatorrhoea and previous history of pancreatitis. History of pancreatitis was statistically significant with an OR of 10.21, for faecal elastase insufficiency.

**Conclusion** In our study group we found that a previous history of pancreatitis was a strong predictor of a low faecal elastase. Though statistically not significant, patients with diarrhoea, steatorrhoea and weight loss, do benefit from FE testing.

**Competing interests** None declared.

**REFERENCES**