Introduction Patients with Intestinal failure (IF) are at risk of malnourishment and altered body composition particularly at times of acute illness. Loss of muscle mass and poor functional ability are risk factors for deconditioning, extended length of stay and surgical complications. Funding a dedicated physiotherapist for our IF unit was identified as an opportunity to address these risk factors.

Method A full time senior physiotherapist joined the multidisciplinary IF team in June 2019. A prospective service evaluation was undertaken before and after physiotherapy intervention to assess the following outcome measures: hand grip strength (HGS), 6 minute walk test (6MWT), hospital anxiety and depression scale (HADS) and quality of life (using EQ-5D-5L). Physiotherapy intervention included general mobility, strength and balance exercises, exercise bike, weighted exercises and functional tasks (e.g. washing and dressing, walking to shops, brushing teeth, kitchen management).

Results Completed data was collected for 20/28 (71%) IF patients with 45% male and 55% female with a median age of 64 years (age range 18 – 80 years). Dominant HGS increased by 44%. 6MWT had a mean improvement of 123 meters (m) with 4 patients who were unable to walk on admission completed between 120 m and 420 m on discharge. HADS showed a reduction in self-perceived depression by a mean of 35% and a decrease in self-perceived anxiety by a mean of 38%. The EQ-5D-5L data demonstrated that the patient's perception of their mobility had improved or remained the same in 90% of cases whilst their ability to care for themselves also improved or remained the same in 90% of patients. The patients valued their health on admission and discharge using the EQ-5D-5L. The mean value on admission was 52% and on discharge was 70%.

Conclusion Dedicated physiotherapy, as part of a multi-modal approach to managing patients with IF, was associated with improvements in HGS and 6MWT, resulting in improved patient independence. This aided functional ability to self-care, reduced care needs on the ward and improved quality of life. Physiotherapy intervention was also associated with reduced hospital anxiety and depression scores as well as reduced anxiety about managing independently at home following a long hospital stay. The success of this pilot project supports the need for dedicated therapy services to be embedded into multidisciplinary IF teams. There may also be scope for an expanded role particularly in outpatient clinics and community follow up.

P282 A STUDY OF NASOJEJUNAL TUBE PLACEMENT AND OUTCOMES IN A TERTIARY NHS TRUST

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Introduction Nutrition is an often neglected but important aspect of inpatient treatment, with malnutrition associated with poorer immunity, impaired wound healing and longer hospital stays.¹ Post-pyloric feeding is considered the optimal mode of delivery of nutrition for patients in whom the only other viable alternative would be parenteral nutrition. Nasojejunal feeding tube (NJT) is a common route of post-pyloric feeding, inserted either endoscopically or radiologically. The main disadvantages of NJTs are difficulties with insertion,

blockage or displacement.² There is a lack of evidence supporting one mode of insertion over the other.³ In this study we compared the outcomes of endoscopic and radiologic NJT insertion at a tertiary NHS Trust with Hepatobiliary and Specialist Upper Gastrointestinal Surgical units.

Methods Patients who underwent NJT insertion between January 2018 and October 2019 were identified, excluding patients who underwent the procedure under study protocols or privately. Data was collected on the method of insertion and patient outcomes, including complications and the need for repeat procedures.

Results 71 patients were included (53 radiologic vs 18 endoscopic NJT insertions). Indications included gastric outlet obstruction (mainly secondary to malignancy), pancreatitis and gastroparesis. Successful NJT insertion was achieved endoscopically in 100% of patients vs 92% radiologically. The rate of complications (including hypoxia, infection and intolerance) was significantly higher in the endoscopic group vs radiologic (83% vs 49%, $p=0.01$). Patients who first underwent radiologic NJT insertion were less likely to need a repeat procedure, 32% vs 72% ($p<0.01$). 28% of patients with radiologically placed NJTs required multiple (≥ 2) procedures vs 72% of endoscopically placed devices ($p<0.01$).

Conclusions NJT insertion, either endoscopic or radiologic, presents technical challenges and often requires repeat procedures. Endoscopic placement may be complicated by sedation and endoscopy-specific risks, whilst radiological placement confers radiation exposure to the patient. In our large centre experience, radiological insertion of NJTs resulted in fewer complications post procedure, with patients less likely to require a repeat procedure vs endoscopic insertion. Choice of how to site NJT may depend on access and availability of local resources. To avoid multiple tubes, alternative feeding routes (including surgical jejunostomy or percutaneous endoscopic gastro-jejunostomy) may be considered for prolonged feeding.

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P283 RETROSPECTIVE AUDIT OF MORBIDITY AND MORTALITY FOLLOWING PEG VS RIG INSERTION IN NHS LOTHIAN

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Introduction In the UK approximately 9000 people receive nutrition through home enteral tube feeding and 80% of these people have a gastrostomy. Gastrostomy tubes can be inserted either during an endoscopic procedure (PEG) or by radiological guidance (RIG). Following the NCEPOD report which identified a high mortality rate with PEGs, there has been a move to use gastrostomy tubes in patients only where it is clinically appropriate. RIG insertion is a less invasive procedure, but in many centres PEG is the preferred method. This study was carried out to compare the outcomes of the two procedures in a region where gastrostomy insertion by radiological guidance is the preferred procedure.

Methods A 1-year retrospective audit was performed to establish the morbidity and mortality rate at 30 and 90

days following PEG and RIG insertion in NHS Lothian, a healthboard covering a population of approximately 1 million people. Endoscopy records from Unisoft and radiology request records from NHS Lothian Trakcare were used to identify patients who underwent one of these procedures in 2018. Electronic notes and endoscopy reports were reviewed.

Results In total there were 139 RIG insertions and 29 PEG insertions carried out in patients who had never had this procedure performed before. 81% of the RIG insertions were carried out for cancer, of which 88% were in patients undergoing active treatment of their cancer with curative intent. PEG insertion was most commonly performed following a stroke (24%). The 30-day mortality rate was lower for RIG insertion (6% vs 14% for PEG), as was mortality at 90 days (11% vs 21%). The most common cause of death within 30 days in the RIG group was related to the underlying malignancy (n=5) whereas in the PEG group it was aspiration pneumonia (n=3). The morbidity rate at 30 days was 48% in the RIG group compared to 37% in the PEG group. Overall 15% of patients developed an infection at their gastrostomy site within 30 days of insertion.

Conclusions Contrary to previous studies, this audit found a lower risk of mortality at 30 and 90 days following RIG insertion than with PEG insertion. This may be related to patient selection, with those undergoing PEG being frailer with more co-morbidities. However, the morbidity rate was higher in the RIG group. The number of RIG insertions was significantly higher than has been recorded in other studies covering a 12-month time period. We conclude that having experienced radiologists performing a large number of procedures each year reduces the risks of the complications. It is important for all invasive procedures that the medical practitioner carrying them out has sufficient expertise to perform them safely.

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PRE-OPERATIVE AND POST-OPERATIVE NUTRITIONAL MANAGEMENT IN INFLAMMATORY BOWEL DISEASE: A CASE FOR A DIETETIC PATHWAY

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Introduction Malnutrition in patients with Inflammatory Bowel Disease (IBD) is a risk factor for postoperative complications including anastomotic breakdown, prolonged hospitalisation and increased mortality.¹ Pre-operative dietary therapy has been shown to improve post-operative outcomes in patients with Crohn's disease.² This study investigates nutritional care of patients pre and post IBD surgery.

Methods All surgical episodes in patients with IBD between 1/1/2018 & 31/12/2018 were extracted from University Hospital Southampton Databases. Non-IBD or non-resection surgeries were excluded. Each electronic case record was manually examined for evidence of the following: Pre and or post-operative Dietitian input, Pre-operative nutritional support prescription, Body Mass Index (BMI) pre-op, operation and post-op, Iron status checked pre-op, Vitamin B₁₂ checked and or replaced post-op.

Abstract P284 Table 1 Patient Characteristics

	Overall (n=72)
Median Age in years (min-max)	45(18-82)
Gender Female: n (%)	35(49)
Crohn's: n(%)/UC: n(%)	38(53)/34(47)
Pre-op Median BMI kg/m ² (min-max)	24.4(18.7-46.5)
Day of surgery Median BMI kg/m ² (min-max)	23.95(16.6-43.2)
Discharge Median BMI kg/m ² (min-max)	22.1(14.7-35.8)

A data protection impact assessment was completed and approved by the Trust Information Governance. Wilcoxon Signed Rank Test was used to measure differences between BMI values at each time point.

Results Of 1,012 cases, 72 were confirmed IBD resections. There was a statistically significant fall in weight between pre op and admission with 23% losing >5%, 14% >10% and 9% >20% (*p*:0.005). Weight loss was also identified pre vs post-op (*p*:0.002) and between operative & discharge weights (*p*:0.05). 43% were seen by a dietician pre-op and 51% (n=37) were seen post op. 88% (n=7) of patients with a low pre-op BMI (<20 kg/m²) were seen by a dietitian. Iron status was checked in 47% pre-op and 19% of ileal resected patients did not have B12 checked or replacement prescribed.

Conclusions This study confirms patients with IBD have inconsistent nutritional assessment and monitoring in the pre & post-operative period. Weight loss is common and those with a normal BMI may not be referred for a dietetic assessment. A formal peri-operative nutritional care pathway should be implemented to ensure optimal care.

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ARE THERE NEW TOOLS TO ASSESS FIBROSIS IN IFALD?

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Introduction Intestinal failure associated liver disease (IFALD) refers to liver injury due to intestinal failure (IF) and parenteral nutrition (PN). This presents as steatosis and cholestasis which can lead to fibrosis and cirrhosis. ESPEN recommends that IFALD should be diagnosed by the presence of abnormal liver function tests (LFTs) with radiological and/or histological evidence of liver abnormality. Non-invasive tests such as FIB-4, ELF and Fibroscan® are not validated in patients with IFALD. We assessed the diagnostic correlation of these tests in patients on HPN in our regional IF unit.

Method Data was collected retrospectively on HPN patients with Type 2 or 3 IF (exclusion criteria included those on palliative HPN or HPN <6 months). Patients with persistently (>6 months) abnormal LFTs (2 of ALP/SGPT/Bili >1.5ULN) were identified and results of non-invasive investigations (FIB-4, ELF and Fibroscan®) were compared with histological staging on liver biopsy.