Conclusion Using our enteral feeding pathway and a multidisciplinary approach, elective NGT feeding in HNC RT patients can be safely established using day-case facilities. It is a cost effective nutritional treatment with no significant complications identified. The pathway provides a clear, safe, efficient and effective approach to nutritional care in HNC RT patients.

Competing interests None declared.

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PMO-047 DIVERSION COLITIS TREATMENT WITH RAPIDLY FERMENTABLE FIBRE-SUPPOSITORIES

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Introduction Diversion colitis, a nutritional deficiency disease of short chain fatty acids (SCFAs) in the defunctioned rectum, responds to butyrate enemas but these are impracticable due to unpleasant malodour. Treatment with rapidly fermentable fibre to SCFAs as suppositories, seemed a preferable option and was tested.

Methods "Hi-maize 260" which is naturally high in resistant starch and is optimally fermented to n-butyrate in the colon[1] was formulated into 2.0 g suppositories with a binding agent of cocoa butter. Patients were selected on symptoms (blood stained discharge, or anorectal discomfort) for treatment. Suppositories were used on alternative nights for 14 days. Colonoscopic examination of the rectum was performed before and 6 days after completion of treatment.

Results "Hi-maize 260" produces a concentration of 20.3 mmol of butyrate in the colon. The diverted rectum of three patients showed severe macroscopic proctitis and mucosal appearances returned to normal after 2 weeks treatment. Long term recovery was not assessed as two patients had the diversion reversed.

Conclusion Dietary fibre suppositories are a convenient treatment for diversion colitis. The healing capacity of fermentable fibre should enable distinction between diversion colitis and ulcerative colitis or Crohn's Disease in a diverted rectum where further reconnection or proctectomy might be contemplated.

Competing interests None declared.

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Obesity

PMO-048 REDUCTION IN PRO-INFLAMMATORY CYTOKINES AFTER WEIGHT LOSS SURGERY: A PROSPECTIVE STUDY

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Introduction Morbid obesity is associated with a pro-inflammatory state, reflected by a relative increase in levels of pro-inflammatory cytokines and corresponding decrease in anti-inflammatory cytokines. The production of active mediators by the adipose tissue plays an important role in this pathological state. We aimed to study the effects of laparoscopic sleeve gastrectomy (LSG) on markers of oxidative stress, inflammatory mediators interleukin (IL) 6 and IL-10, and the adipocytokines Resistin, Leptin and Adiponectin.

Methods We prospectively studied 19 patients (13 females, mean age 45 years; range 27–64) who underwent LSG at our institution. Fasting bloodsamples were taken pre-operatively and at 6 months post surgery. Fasting blood glucose, serum insulin and lipids were also measured at the same time points. IL-6, IL10, Adiponectin, Leptin and Resistin were measured using a bead-based multiplex bioassay. HOMA-IR was used as a measure of insulin resistance. Markers of oxidative stress—lipid peroxidation (TBARS) and glutathione peroxidase (GPX)—were measured using commercially available biochemical kits. Results are expressed as mean. Statistical analysis employed one-way ANOVA with repeated measures.

Results LSG was associated with significant weight loss (pre-op 60.0±2.59 kg/m2, vs 53.0±2.35 at 6 weeks, 45.8±2.0 at 6 months, $p<0.0001$). Insulin resistance decreased significantly (HOMA-IR 8.7±1.4 vs 3.8±0.7 vs 2.4±0.5, $p<0.0001$). IL-6 and Leptin levels were significantly lower at 6 months post-op (6.6±1.0 pg/ml vs 4.8±1.1, $p<0.031$; 16.4±3.1 ng/ml vs 5.3±1.2, p<000.1). Resistin, Adiponectin and IL-10 levels did not change significantly: Resistin 1.0±0.1 ng/ml vs 0.97±0.1; Adiponectin 11.7±1.8 μg/ml vs 9.9±1.5; IL-10 pg/ml 0.72±0.1 vs 0.67±0.1. There were no significant changes in TBARS or GPX.

Conclusion Insulin resistance and BMI fall significantly after LSG and this is accompanied by a fall in pro-inflammatory cytokines, IL-6 and Leptin. There was no concomitant rise in anti-inflammatory IL-10 and adiponectin. Markers of oxidative stress did not change significantly. Restrictive surgery results in improvements in insulin resistance and a significant reduction in weight. The resulting reduction in adipose tissue, with changes in production of the adipocytokines, has a complex effect on the inflammatory milieu and requires further elucidation.

Competing interests None declared.

PMO-049 PRE-OPERATIVE WEIGHT LOSS IN PATIENTS UNDERGOING LAPAROSCOPIC GASTRIC BYPASS OR BAND

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Introduction To evaluate the number of patients that achieved loss of at least 10% of their excess body weight prior to undergoing laparoscopic gastric bypass or gastric band surgery.

Methods Forty consecutive patients (mean age 48.28 (SD 10.52); 36 females) that underwent laparoscopic gastric bypass or gastric band surgery between May and November 2011 by one surgeon (EE) were included in the study. Patients were identified using the hospital's prospective bariatric database. Inclusion criteria included: age over 18, primary bariatric surgery, Body Mass Index (BMI) over 35. SPSS statistical software was used for the analysis.

Results Fifty-two patients were identified using the database, of which forty fulfilled the inclusion criteria. The mean BMI was 46.67 (SD 5.13) at presentation and 43.15 (SD 4.31) at surgery. Thirty-six patients lost weight pre-operatively, of which twenty-nine achieved their target weight loss. The overall mean % excess weight loss was 17.81% (SD 8.04); of those who achieved the target weight loss, the mean excess body weight loss was 20.27% (SD 6.90). The mean time interval between decision to operate and date of surgery was 28 weeks (SD 14.52). This was not shown to

significantly influence the outcome. Hypertension was present in 18 patients; 10 patients had type 2 diabetes (T2DM), 10 obstructive sleep apnoea (OSA), seven asthma, five hypothyroidism and two chronic obstructive pulmonary disease. The absence of OSA was associated with successful target weight loss. This did not reach statistical significance (24 patients without OSA achieved their target excess body weight loss; p=0.079).

Conclusion The majority of patients in the present study achieved the target weight loss quoted in the literature. The presence of OSA appears to negatively influence the achievement of pre-operative excess body weight loss.

Competing interests None declared.

PMO-050 A SURVEY OF GP'S KNOWLEDGE AND ATTITUDES TOWARDS BARIATRIC SURGERY IN SCOTLAND

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Introduction 25% of Scotland's population are obese. The benefits of bariatric surgery are established however General Practitioners (GP's) influence equality of access to this treatment. This study examines GP's knowledge and attitudes to bariatric surgery in Scotland.

Methods An electronic questionnaire-based study was emailed to all 902 GP's within the NHS Highland, Grampian and Tayside health board regions in Scotland. The questionnaire was piloted with a convenience sample of GP's. Respondents were asked their age, sex and eight questions examining their knowledge, experience and opinions regarding bariatric surgery.

Results 230 GP's completed the survey (25.4% response), a further 11 incomplete submissions were not analysed. 60% (n=139) of respondents were female. 93% of GPs acknowledge they often encounter weight management issues. 62% (n=142) of GPs acknowledge bariatric surgery has an important role in weight management and 69% (n=159) acknowledge it's importance in the management of the obesity related co-morbidities. 30% (n=68) of GPs are not aware of NICE/SIGN guidelines and 57% (n=132) are not aware of their local referral criteria. 40% (n=103) of GPs have never referred. Of those that have, 34% (n=43) of referrals were to the private sector. 76% (n=174) of GPs are not comfortable managing patients who have undergone bariatric surgery. 8% (n=17) of GPs believe the primary role of bariatric surgery is cosmetic. Of these, 47% (n=9) are aged 25–40 years.

Conclusion Weight management issues are common in primary care and most GP's support bariatric surgery. However a third of GP's are unaware of national guidelines and half do not know how to refer to their local service in Northern Scotland. Most GP's are not comfortable providing long-term care after bariatric surgery. These findings suggest GP's require education and support to allow their patients access to bariatric surgery.

Competing interests None declared.

PMO-051 PRE-OPERATIVE DIETARY WEIGHT LOSS DOES NOT CORRELATE WITH BETTER POST-OPERATIVE OUTCOMES FROM LAPAROSCOPIC ADJUSTABLE GASTRIC BANDING

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Introduction Patients considered for laparoscopic adjustable gastric banding (LAGB) are encouraged to lose weight pre-operatively, based on the hypothesis that good pre-operative dietary weight loss correlates with a favourable post-operative outcome and allows safe surgery. This study aims to assess whether pre-operative weight loss is a true predictor of post-operative weight loss in patients who underwent LAGB for morbid obesity.

Methods A retrospective analysis of patients who underwent LAGB in 2007 at our institution by a single surgeon, using actual body weight loss pre-operatively (from patient's BMI at the bariatric surgical clinic vs their BMI on the pre-operative day) and then comparing this to their BMI at 1 and 2 years post-operatively.

Results 69 patients were included in the study (M=23, F=46, M: F=1:2), with a mean age of 45.7 years (Range 19–64). The average BMI at the bariatric surgical clinic was 54.01 (Range = 38–72). The average BMI on the pre-operative day was 52.13 (Range 33–70), which reflected in a mean reduction in BMI of 1.88 (or 4.86 kg) (Range −5–19) or a mean excess percent BMI loss (EBL) of 7.4 kg/m^2. An analysis of their 1- and 2-year post-operative weight loss compared to their weights from clinic was then performed. At 1 year post-operatively, the mean reduction in BMI was 11.1 (Range = −5–27) or an EBL of 33.6 kg/m^2. At 2 years post-operatively, the mean reduction in BMI was 13.29 (Range = −1–35) or an EBL of 41.5 kg/m^2. Correlation between pre-operative weight loss vs weight lost at 1 and 2 years post LAGB was performed using the Spearman Rank Correlation, as the data were not normally distributed. At 1 year post-operatively, the Spearman Rank Correlation was 0.154 (95% CI −0.094 to 0.383) with a p value of 0.208 (no statistical significant correlation). At 2 years post-operatively, the Spearman Rank Correlation was 0.069 (95% CI −0.177 to 0.307) with a p value of 0.573 (no statistical significant correlation). Scatter plot graphs of individual pre-operative weight loss data vs year 1 and year 2 weight loss data confirmed there was no linear correlation.

Conclusion Pre-operative dietary weight loss does not correlate with better outcomes following laparoscopic adjustable gastric banding.

Competing interests None declared.

PMO-052 SLEEVE GASTRECTOMY FOR OBESITY: A SYSTEMATIC REVIEW

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Introduction Sleeve gastrectomy has become an accepted and popular bariatric procedure world wide. Weight loss is achieved through restrictive and endocrine mechanisms. We aimed to evaluate the efficiency of excess weight loss by sleeve gastrectomy and to compare it to other bariatric procedures.

Methods We searched the Cochrane Database of Systematic Reviews and Pubmed for studies assessing the efficiency of sleeve gastrectomy. Strict inclusion criteria and thorough appraisal of the reviews was required to ensure comparability of the included papers.

Results Our dataset comprised of individual data on 1845 patients from 27 different studies. The median difference in excess body weight loss across the 27 studies which reported weight loss was a significant difference of 56.2% (range 33–85). The mean mortality rate reported from the studies was 0.16%. The major postoperative complication rate ranged from 0% to 23.8%.

Conclusion From the data we have gathered it may be reasonable to conclude that sleeve gastrectomy is an efficient procedure which achieves comparable if not better excess weight loss to both gastric bypass and banding. It may be achieved safely and has similar complication rates to other bariatric procedures. However there is currently little data assessing long term outcomes of the procedure.

Competing interests None declared.