Conclusions Nasobiliary drainage is a safe endoscopic technique that improves symptomatic cholestasis. The drainage catheters are well tolerated by patients with an acceptable side-effect profile.

PTU-17 A COMPARISON BETWEEN ENDOSCOPIC AND RADIOLOGICALLY PLACED DUODENAL STENTS IN MALIGNANT GASTRIC OUTLET OBSTRUCTION

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Introduction Duodenal stenting is an established palliative therapy in malignant gastric outflow obstruction. This can be carried out either endoscopically or via interventional radiology (IR) depending on clinician experience and resources. We sought to assess the efficacy and safety of these two methods in our centre.

Methods Patients who underwent duodenal stenting via endoscopy or IR from July 2014 to November 2020 were retrospectively identified. Unique patient identification numbers were cross referenced with the endoscopy database and electronic record. Patient demographics, procedure indication, success rates and complication rates were recorded. Technical success was defined as safe insertion of the duodenal stent across the stricture. Clinical success was defined as relief of symptoms related to gastric outlet obstruction (Grades; 0 – fail, 1 – liquid diet, 2 – soft diet, 3 – solid diet). Statistical analysis was performed using Fisher's Test with p value of < 0.05 being significant.

Results 92 patients underwent 114 procedures. Stenting was carried out via endoscopy in 78 patients (103 stents, age median 69 (32-90)), with 17 patients having stents inserted via IR (27 stents, age median 63 (46-88)). The median survival for both groups was 167.9 days following their first stent insertion.

In the endoscopic intervention group, 63 had gastric outlet obstruction secondary to an upper GI cancer and 15 had metastatic disease from a non-upper GI primary. 4 of the patients had a previous Whipple's procedure and 1 had a gastrojejunostomy. In the IR group, 16 had an upper GI cancer, 1 had metastatic colorectal cancer. 1 of these patients had a previous gastrojejunostomy.

There were no immediate serious post procedure complications in either group. 2 patients in the endoscopic group had early stent migration (within 30 days of insertion) and 1 patient's stent did not fully open and required balloon dilatation. Similarly, in the IR group, 1 patient's stent did not fully open requiring balloon dilatation of the stent and an additional stent insertion.

In the endoscopic group, technical success was achieved in 101 (98.1%) stents compared to 25 (92.6%) in IR ($p = 0.19$). A patient with previous gastrojejunostomy underwent a combined endoscopic and radiological procedure unsuccessfully. In the endoscopic group, 1 stent was inadvertently deployed through an existing biliary metal stent. On further analysis, we observed that more than one stent was inserted more frequently in the IR group, 13 of 20 procedures (65%), compared to 10 of 93 (10.8%) endoscopic procedures ($p = 0.003$). Tumour ingrowth and stent obstruction occurred in 12

(12.8%) procedures in the endoscopy group vs 2(10%) in IR group within 6 months from insertion.

Clinical success was achieved in endoscopic stenting in 95 (92.4%) of the stents vs 23 (85.2%) through IR ($p = 0.27$). Further analysis comparing the type of diet patients could tolerate was available for 51 (out of 77) of the patients in the endoscopic group and for all 17 patients in the IR group. In the endoscopically inserted group, 22 patients tolerated solid diet (43.1%), 18 tolerated soft diet (35.3%) and 6 tolerated liquid diet (11.8%) vs 3 (17.6%), 10 (58.8%) and 2 (11.8%) in the IR group respectively.

Conclusion In malignant gastric outlet obstruction, duodenal stents inserted endoscopically or radiologically, can be performed safely and allow patients to live with improved symptoms for an extended period of time. In our cohort, it appears that radiologically, 2 overlapping stents are more frequently required to achieve the desired effect. We suspect this is because of endoscopic direct visualisation of the obstruction aids stent position on insertion.

PTU-18 ENDOSCOPY PROCEDURE VOLUME AMONG THE UK ENDOSCOPIST WORKFORCE: ANALYSIS USING THE NATIONAL ENDOSCOPY DATABASE (NED)

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Introduction The British Society of Gastroenterology recommends endoscopists perform a minimum number of endoscopic procedures annually to maintain competence: OGD & colonoscopy 100, ERCP 75.

This study aimed to use the National Endoscopy Database (NED) to identify the proportion of the UK endoscopist workforce performing fewer than recommended annual procedures, and their contribution to overall activity.

Methods NED records endoscopy procedural data in real time; over 80% of UK endoscopy sites now upload to NED.

All procedures recorded from 1st March 2019 to 29th Feb 2020 were analysed. Endoscopy sites not uploading throughout the entire study period were excluded. Trainees were excluded, as they are not subject to the recommended minimum procedures, as were endoscopists solely uploading from independent sector (IS).

Median annual procedures included those performed in the NHS and IS and were computed overall and for doctor and nurse endoscopists (NE) separately. The percentage of endoscopists undertaking less than the recommended minimums, and the percentage of all procedures done by these endoscopists were calculated.

Result 187 NHS sites were included in the analysis, covering 1,230,822 procedures. The workforce comprised 3377 doctors (87.5%) and 484 NE (12.5%). Doctors performed 924,976 (75.2%) procedures and NE 305,855 (24.8%). Analysis of individual procedures is shown in Table 1.

Conclusion Nurse endoscopists perform substantially more procedures than doctors (median per endoscopist) and perform a quarter of all UK endoscopy.

Around half of UK endoscopists do not reach the minimum annual number of procedures for OGDs, colonoscopies or

Abstract PTU-18 Table 1 Endoscopy workforce by procedure

	Role	Endoscopists	Procedures	Median Endoscopist Annual Procedures (IQR)	Endoscopists performing fewer than recommended procedures annually*	Procedures by Endoscopists performing fewer than recommended annually (% total procedures)
OGD	Doctor	2937 (89.5%)	404529 (76.9%)	94 (23-218)	51.3%	
	NE	345 (10.5%)	121249 (23.1%)	243 (23-548)	36.2%	
	Total	3282	525778	101 (23-240)	49.7%	48566 (9.2%)
Colon	Doctor	2567 (89%)	357853 (83.8%)	110 (30-221.5)	47.1%	
	NE	317 (11%)	69327 (16.2%)	170 (16-343)	40.1%	
	Total	2884	427180	113.5 (28-232.25)	46.3%	42842 (10%)
FS	Doctor	2516 (87.3%)	141909 (55.2%)	37 (12-76)	na	
	NE	365 (12.7%)	115279 (44.8%)	173 (46-497)	na	
	Total	2881	257188	41 (13-90)	na	na
ERCP**	Total	316	20676	63.5 (13-104)	55.1%	4308 (20.8%)

* <100 for OGD/Colon, <75 for ERCP, nil minimum set for FS

**ERCP workforce comprised 313 doctors (99.1%) so no split by Doctor and NE performed

ERCPs, but these endoscopists perform only 9.8% of total procedures. Further analysis is required to compare KPIs for those not reaching and those exceeding the minimums. If other KPIs are low in the group not reaching the minimum additional intervention is required; conversely, if this is not the case, the appropriateness of the minimum standard should be reviewed.

PTU-19 THE ENDOSCOPY SAFETY ATTITUDES QUESTIONNAIRE (ENDO-SAQ): RESULTS OF A PILOT STUDY

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Introduction Across healthcare, evidence has demonstrated the influence of safety culture on patient outcomes. We developed a novel tool to measure endoscopy safety culture - the Endoscopy Safety Attitudes Questionnaire (Endo-SAQ). Our aims were to assess the safety attitudes of our workforce and tool validity in a pilot study.

Methods The previously validated SAQ was adapted by the core research team to reflect endoscopy-specific content. An expert group was convened to undertake a rating exercise to assess content validity. Endo-SAQ has 6 domains: teamworking, safety climate, job satisfaction, stress recognition, perceptions of management and working conditions.

The Endo-SAQ was administered to the staff at a tertiary UK endoscopy unit. Outcome measures were mean domain scores, percentage of positive responses per domain, content validity indices (item (I-CVI) and scale (S-CVI)) and internal consistency (Cronbach's alpha). Statistical analysis included descriptive statistics, paired samples *t* test, one-way ANOVA and Kruskal-Wallis tests.

Results 61 participants completed the survey (completion rate 88.4%). All domains scores were over 60%, indicating a positive overall response across domains. The percentage of positive responses per domain varied, with 'perceptions of management' and 'working conditions' both scoring < 40% (Table 1). This appears to be in line with the wider literature

Abstract PTU-19 Table 1 Mean scores (as%) and percentage of positive responses for each domain (SD = standard deviation)

Domain	Mean score (SD)	% positive responses
Teamworking	74.32 (20.75)	59.70
Safety climate	76.13 (16.16)	58.70
Job satisfaction	77.68 (19.07)	66.70
Stress recognition	73.51 (26.89)	66.70
Perceptions of management	64.35 (22.44)	33.90
Working conditions	66.78 (19.77)	38.70

in medicine and surgery. On subgroup analysis, nurses scored 'job satisfaction' ($p = 0.01$), 'perceptions of management' ($p = 0.002$) and 'working conditions' ($p = 0.004$) significantly lower than endoscopists.

Five independent expert raters scored the Endo-SAQ for clarity and relevance. Four items had an I-CVI < 0.78 resulting in question rewording. Overall, S-CVI was > 0.90 indicating good content validity. All Endo-SAQ domains scored 'acceptable' or above for internal consistency.

Conclusions Endo-SAQ can detect safety attitudes and differences between groups. A national study is due to be undertaken utilising Endo-SAQ in addressing modifiable factors to support the workforce better.

PTU-20 NO SURVEILLANCE INTERVAL CHANGE WITH OPTICAL DIAGNOSIS OF SMALL POLYPS DURING BOWEL CANCER SCREENING COLONOSCOPY

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Introduction High confidence optical diagnosis (OD) in combination with a 'resect and discard strategy' during screening colonoscopy has advantages over histology alone, provided accuracy is maintained regarding surveillance intervals. Low confidence diagnoses, and/or polyps >1cm still require histology to complete individual patient polyp datasets and inform