duodenoscopes equipped with standard ERCP accessories. The laparoscopic procedure involved formation of a closed pneumoperitoneum to a pressure of 12 mmHg with a Veress needle. A 15 mm trocar was placed in the epigastrium and two 5mm trocars were placed in the right and left flanks for surgical access. A 15 mm gastrostomy port was secured with purse-string sutures. The duodenoscope was inserted via the port into the gastric remnant and advanced conventionally into the duodenum. Standard therapeutic ERCP technique was then performed. Closure of the gastrostomy was achieved with a double layer of 2–0 vicryl sutures. Peri-procedural prophylactic intravenous antibiotics were administered routinely in all patients.

Conclusion Five LA-ERCPs (on 5 patients) were performed. All patients were Female with median age 44 years (range 36–71). Indications included symptomatic bile duct stones (3/5), benign papillary fibrosis (1/5) and retained biliary stent (1/5). Duodenal access, biliary cannulation and completion of therapeutic aim were achieved in all patients. 4/5 (80%) patients required endoscopic sphincterotomy. The 5th patient had a prior sphincterotomy. The mean duration of procedures was approximately 94 min (range 70–135). Median post-op length of stay was 2 days (range 1–9). One patient developed mild post-procedural acute pancreatitis. Otherwise no procedure related complications were seen.

REFERENCE

Our early experience of LA-ERCP is that it is safe and effective. The technique may require particular consideration, as bariatric surgery is increasingly performed, in a patient group at significant risk of bile duct stones.

Disclosure of Interest None Declared.

PTH-006 CURRENT PERFORMANCE OF ERCP IN THE CLEARANCE OF BILE DUCT STONES IN UK CENTRES - WORKING TOWARDS ROBUST KEY PERFORMANCE INDICATORS

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10.1136/gutjnl-2014-307263.452

Introduction Choledocholithiasis is the commonest indication for endoscopic retrograde cholangiopancreatography (ERCP). ERCP carries substantial risk of complication when compared to other endoscopic modalities. The identification of key performance indicators (KPIs) in colonoscopy practice and implementation of related standards has driven quality assurance in the UK and elsewhere. The failure to establish similar contemporary, meaningful and measurable KPIs in ERCP has hampered the development of national standards. We aimed to quantify current performance in a potential new endoscopic KPI: the complete clearance of CBD stones at first ERCP.

Methods Seven centres participated – four secondary and three tertiary HPB units. All patients undergoing first ERCP for confirmed or suspected choledocholithiasis over a twelve month period were included and data were analysed on an intention to treat basis. The primary endpoint was complete clearance of bile duct stones. Failure to clear stones was defined as i) persisting stones reported ii) placement of biliary endoprosthesis, even if considered precautionary. Secondary endpoints were CBD cannulation, successful biliary decompression and complications. Outcomes were analysed by unit and by consultant clinician performing the procedure.

Results 1178 patients were included in the study. 20 consultant endoscopists carried out or supervised the procedures. Overall, deep biliary cannulation was achieved in 1074/1178 (91%, range for seven units 82–96%). Complete bile duct clearance at first ERCP was achieved in 861/1178 (73%, 65–81%).

Conclusion We investigated the outcome of 1178 ERCP procedures, representing real-life practice in the UK. Duct clearance was possible at first ERCP in almost three quarters of patients. There were significant differences in performance between units and individual operators. The reasons for this are not fully elucidated. The primary endpoint of this study has strengths as a potential KPI. It is clearly defined, measurable on an intention to treat basis and is strongly focused on patient outcome. In addition, it quantifies performance in the commonest indication for ERCP, stone extraction, which is undertaken in all ERCP units.

Disclosure of Interest None Declared.

Abstract PTH-006 Table 1

Unit	1° GSD cases (n)	Cannulated (n)	Cannulated (%)	Complete (n)	Complete (%)
T	154	135	88	100	65
U	323	308	95	263	81
V	129	115	89	98	76
W	211	202	96	149	71
X	134	110	82	89	66
Y	133	118	89	95	71
Z	94	86	92	67	71
Total	**1178**	**1074**	**91**	**861**	**73**

PTH-007 ERCP CANNULATION SUCCESS BENCHMARKING: IMPLICATIONS FOR CERTIFICATION AND VALIDATION

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10.1136/gutjnl-2014-307263.453

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Abstract PTH-007 Table 1

Success (%) Per Procedure	'All comers'	Eliminate Previous Failure	Eliminate Billroth I /II / Roux En Y	Eliminate Duodenal Stricture	Eliminate CBD Tumour	Eliminate Chronic Pancreatitis
Virgin Papillae	79%	80%	81%	82%	84%	84%
Non-Virgin Papillae	93%	95%	95%	96%	97%	97%
Overall	86%	87%	88%	89%	90%	90%

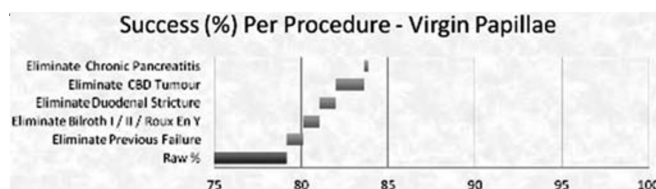
Introduction An investigation of success rates of cannulating a 'virgin' papilla during endoscopic retrograde cholangiopancreatography (ERCP) at a tertiary referral centre, compared against Joint Advisory Group (JAG) guidelines, and assessment of the reasons for failure.

Methods Retrospective review of Endosoft database and radiology records of patients who underwent ERCP conducted between 2006–2012 (n = 1519) at the Gastroenterology department, St Thomas' Hospital, London. Specifically 'virgin' papillae were considered, defined as those with no evidence of prior cannulation, stents *in situ* or sphincterotomies (n = 795), as these represent the most challenging and repeatable targets for endoscopists.

Results Over the 7 year period, the overall ERCP cannulation success rate per patient was 86, or 79% per virgin papilla procedure. By defining an 'accessible' (see Table) virgin papilla, a 90% success rate was achieved for each procedure, as well as per patient. Procedure success rates per consultant ranged from 79 – 89% for virgin, and 94 – 99% for non virgin cannulations, highlighting the need for careful definition of success criteria. Chronic pancreatitis was the only statistically significant indication associated with a failed cannulation (OR=3.3, CI: 1.7–6.4), and previous failure begat subsequent failure (OR=2.2, CI: 1.1-4.4). Reasons for failure included previous gastroduodenal surgery (OR=48.9, CI: 6.3–379.2), papilla tumour impingement (OR=57.8, CI: 7.5–443.3), duodenal stricturing (OR=36.0, CI: 4.5 – 286.3).

Conclusion The 79% success rate for virgin papilla cannulation at a tertiary referral centre needs to be understood in context of JAG's recommended 80% success for overall therapeutic intent. As can be seen, depending on the way we define the duct, and therapeutic intent, we can fall short or far exceed the JAG guidelines. We believe that our data shows that the JAG benchmark for therapeutic success at initial attempt for trainees, and even for established ERCP-ists is currently too ambitious, since therapy requires cannulation to be achieved, and therapeutic success is not universal after successful diagnostic ERCP. We also believe that any measure of success needs to include the minimum criteria of whether the papilla was virgin, accessible, or associated with either previous failure or intended pancreatic therapy. As a corollary of this work we hope to encourage other units to publish clearer definitions when defining success.

Disclosure of Interest None Declared.



Abstract PTH-007 Figure 1

PTH-008 SAFETY AND EFFICACY OF BALLOON SPHINCTEROPLASTY USING CONTROLLED RADIAL EXPANSION (CRE) BALLOON DURING ENDOSCOPIC RETROGRADE CHOLANGIO PANCREATOGRAPHY IN THE MANAGEMENT OF LARGE COMMON BILE DUCT (CBD) STONES: A DISTRICT GENERAL HOSPITAL EXPERIENCE

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10.1136/gutjnl-2014-307263.454

Introduction Extraction of large (>1 cm) CBD stones at ERCP is often difficult despite adequate sphincterotomy. Failure of extraction of stones warrants repeat ERCPs and also referral to advanced techniques such as extracorporeal shock wave lithotripsy which is not readily available in UK centres. We believe that balloon sphincteroplasty is a safe and effective procedure which is underutilised. We describe a large district general hospital experience of use of balloon sphincteroplasty in a cohort of elderly patients.

Methods All patients who underwent balloon sphincteroplasty since June 2012 at Princess Royal Hospital, Bromley were identified from endoscopy database. Patients demographics, sedation dose, size of balloon sphincteroplasty, success rate of CBD stones clearance and complications were examined.

Results A Total of 29 patients underwent balloon sphicteroplsty. 8 (27%) of these patients had previous unsuccessful attempt at ERCP removal of stones. All patients had sphincterotomy prior to sphincteroplasty. Mean age of patients was 72 years. There were 20 female and 9 male patients. Mean dose of Midazolam was 4 mg and Fentanyl 75 mg. Mean size of the CBD stones in these patients was 13 mm (range 10–20 mm). 8 patients had large peri-ampullary diverticulum (6 patients had ampulla at the edge of diverticulam, one <5 mm).

Balloon sphincterotoplasty using Boston Scientific CRE balloon was performed. Mean size of balloon sphincteroplasty was 14 mm (range 10–20 mm and median 15 mm). Stone retrieval basket was used in 6 patients. Complete extraction of CBD stones was documented in 28 of 29 (97%) patients.

One patient developed uncomplicated pancreatitis who recovered with conservative management. One patient had minor bleeding which settled spontaneously. None of the patients had perforations. Stone clearance was incomplete in one patient due to to a small proximal stone floated up in to the left hepatic duct. On median follow up of 6 months 1 patient underwent repeat ERCP for recurrence of stones.

Conclusion In our district general hospital cohort of elderly patients, Balloon sphincteroplasty was found to be safe and effective procedure in extraction of large common bile duct stones. Complete extraction of CBD stones was achieved in 97% of patients. One patient had mild pancreatitis, one had mild bleeding and there was no of perforations observed. Balloon sphincteroplasty was particularly useful in patients with peri-ampullary divericulm in whom a generous sphincterotomy could

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