operability. Furthermore, the preservation of hepatic parenchyma by NAR may enable a larger proportion of patients subsequently developing recurrent metastatic disease to undergo repeat metastasectomy.

Competing interests None declared.

PTU-075 LIVER DYSFUNCTION AFTER MAJOR HEPATIC RESECTION

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[1,2]D C Bartlett,* [2]E L Neo, [2]G Bonney, [2]R Marudanayagam, [2]D Mirza. *[1]NIHR Biomedical Unit and Centre For Liver Research, University of Birmingham, Birmingham, UK; [2]Liver Unit, Queen Elizabeth Hospital, Birmingham, UK*

Introduction Liver failure is a potentially fatal complication following major hepatic resection. This study evaluates the incidence and factors associated with posthepatectomy liver failure (PHLF), as well as the outcomes and survival of these patients.
Methods All patients who underwent elective major hepatic resection (>4 liver segments) between January 2001 and March 2011 were identified from a prospective database. Patients with bilirubin levels >100 mmol/l or INR >2 on three consecutive days within the first post-operative week were diagnosed with PHLF (n=54). These patients were compared with 654 control patients.
Results Patients with PHLF had a higher incidence of diabetes mellitus compared to the control group (9.5% vs 3.1%, p=0.05). There was no significant difference in age, pre-operative chemotherapy, weight of resected specimen, use of Pringle manoeuvre, degree of steatosis/fibrosis of background liver, or amount of perioperative blood transfusion. Post-operatively, patients with PHLF were more likely to require n-acetylcysteine (51.4% vs 13.4%, p<0.001) and dialysis (13.2% vs 1.8%, p<0.001), and had longer ITU stay (mean 2.57 days vs 0.84 days, p<0.001). The PHLF group had higher 30-day (22.6% vs 3.1%, p<0.001) and 90-day mortality (41.5% vs 4.7%, p<0.001). Median survival was 9.86 months in the PHLF group and 49.77 months in the control group (p<0.001).
Conclusion This study over a 10-year period has shown a small risk of PHLF (7.6%) in patients undergoing major hepatic resection. PHLF is associated with significantly increased post-operative morbidity and mortality.

Competing interests None declared.

PTU-076 FACTORS AT FIRST ERCP WHICH INFLUENCE THE DECISION TO PROCEED TO SUBSEQUENT SURGERY OR REPEAT ERCP FOR COMPLEX BILIARY PROBLEMS

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[1]E Watts,* [2]H Nair, [2]S Bow, [2]A MacGilchrist, [2]A Bathgate, [2]J Plevris, [2]J Casey, [2]J Powell, [1]J Garden, [1]R Parks, [1]M Duxbury, [2]N Church, [1]D Mole, [2]R Ravindran. *[1]University of Edinburgh, Edinburgh, UK; [2]Royal Infirmary, Edinburgh, UK*

Introduction ERCP is a safe and highly effective solution to many pancreaticobiliary problems. However, surgical options also exist. After a challenging first ERCP, it can be unclear whether surgery or repeat ERCP is preferred. The aim of this study was to identify predictive factors at first ERCP which inform this decision.
Methods All ERCPs performed at one hospital (April 2008–March 2011) were analysed. Patients having more than one ERCP were evaluated in detail. Demographics, disease-specific and procedure-specific variables relating to ERCPs and any subsequent surgery were extracted. The primary outcome measure was a requirement for surgery after two or more ERCPs. Descriptive statistics and logistic regression were performed.
Results 1729 ERCPs were done in 1270 patients, of which 317 patients had more than one ERCP. Of these, 140 patients were randomly sampled and analysed in detail. These form the denominator for this analysis. The primary diagnosis was gallstones in 62.8%, malignancy in 16.9% and stricture in 10.2%. Combinations of these or other diagnoses occurred in 17.6%. 74.5% of first ERCPs were urgent or emergent. Cannulation was attempted in 96.3% and successful in 81.5% of patients. The operator deemed the first ERCP to be successful in 40.6%. Multiple stones requiring a stent and planned revisit occurred in 15.2% and a large stone requiring lithotripsy in 9.8%. Repeat ERCP was deemed successful by the operator in 65.2% of cases. 40.2% went on to subsequent ERCP attempts. 31.1% of patients having a second or subsequent ERCP ended up having surgery (open biliary exploration, biliary bypass and other operations). On logistic regression, a primary diagnosis of gallstones was associated with likelihood of endoscopic success (OR (95% CI): 3.8 (1.2 to 12.3, p=0.027). In those patients with a primary diagnosis of gallstones, younger patients (OR 1.07 (1.01 to 1.12, p=0.012)) and those with sepsis at presentation (OR 5.3 (1.1 to 25.2, p=0.038)) were significantly more likely to require surgery. No other pattern was predictive of subsequent ERCP success after a first attempt.
Conclusion From this analysis, there are no unequivocal clinical or technical factors which make either ERCP or surgery preferable following an incomplete first ERCP. Repeat ERCP should be considered in gallstone disease. In gallstone disease, younger or septic patients should be considered for early surgery if a first ERCP is not successful. This decision is not straightforward; multidisciplinary teamwork and communication between surgeon and endoscopist are essential.

Competing interests None declared.

PTU-077 UNPLANNED HOSPITAL READMISSION WITHIN 30 DAYS AFTER LIVER AND PANCREATIC RESECTION

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E L Neo, E Viñuela,* S R Bramhall, J Isaac, R Marudanayagam, D Mayer, D F Mirza, P Muiesan, R P Sutcliffe. *Liver Unit, Queen Elizabeth Hospital, Birmingham, UK*

Introduction Due to limited resources within the NHS, clinicians in the UK are under constant pressure to discharge patients rapidly, even after major surgery. There is a concern that premature discharge may lead to high readmission rates and worsen clinical outcomes. The aim of this study was to evaluate the incidence and outcome of unplanned hospital readmission after liver and pancreatic resection.
Methods Patients who underwent liver or pancreatic resection between January and December 2010 were identified from a prospective database. Potential risk factors for unplanned readmission within 30 days of discharge from hospital were evaluated. Complications (Clavien grade) and 90-day mortality were also assessed.
Results The median lengths of hospital stay after liver and pancreatic resections were 6 (range 4–66) and 9 days (range 5–225), respectively. 14/174 (8%) patients were readmitted after hepatic resection. Type of liver resection was significantly associated with readmission (major 12.5% vs minor 3%; p=0.03). Of the readmitted patients, 7 (50%) had grade 3 complications, including four patients who had an uncomplicated index admission, and two patients died due to sepsis. 10/100 (10%) patients were readmitted after pancreatic resection. Readmission was more likely in patients with a pancreatic fistula (30% vs 8%, p=0.06) and a white cell count $>16\times10^9$/L at the time of discharge (50% vs 6%, p<0.001). Of the readmitted patients, 4 (40%) had grade 3 complications, including

three patients who needed embolisation to control bleeding (two patients in this group died within 24 h).

Conclusion Hospital readmission rates after hepatic and pancreatic resection are acceptable. However, readmitted patients have a very high morbidity, often requiring urgent intervention only available at a specialist centre. Efficient communication and rapid transfer of patients to a centre with the available expertise is vital to prevent delayed deaths after major surgery.

Competing interests None declared.

PTU-078 DELAYS IN THE DIAGNOSIS AND MANAGEMENT OF PATIENTS WITH SUSPECTED SPHINCTER OF ODDI DYSUNCTION

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[1]E J Lunn,* [2]F Gohar, [3]P Basumani, [4]M Karajeh, [2]K Kapur. *[1]Gastroenterology, Barnsley, Sheffield, UK; [2]Gastroenterology, Barnsley, UK; [3]Gastroenterology, Rotherham, UK; [4]Gastroenterology, Sheffield Teaching Hospitals, Sheffield, UK*

Introduction Sphincter of oddi dysfunction (SOD) is difficult to diagnose and treat. Biliary manometry is considered to be the gold standard for diagnosing SOD but is not widely available. A significant number of patients, that we think are likely to have sphincter oddi dysfunction, present to our hospitals with recurrent upper abdominal pain. They have multiple investigations, recurrent A+E attendances and repeated admissions without a clear diagnosis or definitive treatment. Our aim was to identify this patient group in order to streamline their investigations and allow definitive treatment at an early stage, prevent readmission and save resources.

Methods A retrospective case note review of patients across three hospitals in South Yorkshire, in whom the final diagnosis was SOD based on their clinical presentation and investigations.

Results We reviewed 40 case notes in total. 88% of patients were female with a median patient age of 40 (18–75 years) Patients on average presented to A+E 6 times (0–50), median number of inpatient admissions was 4 (0–20) with additional outpatient clinic appointments. 70% (28/40) of patients have previously undergone cholecystectomy, with 100% continuing to have similar pain to that prior to surgery. The most common provisional diagnosis at presentation was bile duct stones (38%). Median duration of symptoms was 3 years (range 5 months-23 years). 35% (14/40) of patients initially presented to the surgeons. 100% of patient had abdominal USS (1–5) and 63% had undergone at least one OGD. All patients had a MRCP (range 1–4), 17 (43%) patients had a CT abdomen (0–4) and 12 (30%) patients underwent a HIDA scan. Patients were categorised into SOD type 1 (22%), type 2 (56%) or type 3 (22%) on their clinical presentation and investigations. 28% (7/40) of patient had a trial of Botox, 48% (19/40) underwent ERCP and biliary sphincterotomy with 53% (10/19) having symptomatic improvement. The remainder were managed on medial therapy.

Conclusion There is a significant group of patients, who have recurrent abdominal pain, recurrent admissions, undergo multiple investigations and trials of medical therapy without a definitive diagnosis being made. In addition, these patients are often subjected to invasive interventions such as ERCP and sphincterotomy with the potential risk of serious complications. This audit highlights the need for a designated service to streamline work-up and management of these patients: both to reduce cost and to improve outcomes.

Competing interests None declared.

PTU-079 PROSPECTIVE AUDIT OF READMISSION FOLLOWING EMERGENCY AND ELECTIVE CHOLECYSTECTOMY IN A SINGLE HEALTH BOARD

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[1]E J Barron,* [1]J P Blackmur, [2]R McMurray, [1]E M Harrison, [3]T E Gillies, [1]J Garden. *[1]Clinical and Surgical Sciences (Surgery), Edinburgh, UK; [2]University of Edinburgh, Edinburgh, UK; [3]General surgery, Royal Infirmary Edinburgh, Edinburgh, UK*

Introduction Surgical outcome indicators, such as hospital stay, readmission and mortality rates, are increasingly being used to assess and compare hospital board performance and considerable variation exists between hospitals specifically in readmission rates. The aim of the study was to determine true readmission rates following cholecystectomy in a single large volume centre to determine whether readmission was potentially preventable.

Methods All patients readmitted to one large teaching hospital surgical service within 28 days following elective or emergency cholecystectomy from September 2010 to June 2011 were audited prospectively.

Results Of 979 cholecystectomies performed during the period, 57 (5.8%) patients were readmitted. 38 of the 57 (67%) readmissions followed emergency-admission with symptomatic gallstone disease and 51 of these (89.5%) had undergone a laparoscopic approach. 34/979 (3.5%) were considered to be secondary to demonstrable complications of surgery with the most common cause being retained stones (11). No patient presented with bile duct injury, and there were no deaths. Only 14 of the readmitted patients (25%) required intervention: one required sub-phrenic abscess drainage, nine endoscopic-retrograde-cholangiopancreatography and sphincterotomy (ERCP), two completion cholecystectomy, one laparoscopic assessment following ERCP for bile leak and one underwent hepatico-jejunostomy for definitive management of an irretrievable retained stone following ERCP and laparoscopic bile duct exploration. Of those readmitted, the most common cause of presentation was non-specific abdominal pain (15 (26.3%)) with no cause found.

Conclusion Readmission rate in this large volume centre was low. Most patients readmitted following cholecystectomy have demonstrable surgically related complications but few require definitive surgical management. Further work is being conducted to define potential predictive factors for readmission.

Competing interests None declared.

PTU-080 POLYUNSATURATED PHOSPHATIDILCHOLINE AND SIBUTRAMIN DECREASE THE LIVER FIBROSIS PROGRESS IN PATIENTS WITH NON-ALCOHOLIC LIVER DISEASE

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[1,2]E Sas,* [1]V Grinevich, [1]U Kravchuk. *[1]Department of Therapy Postgraduate Education, St.-Petersburg, Russian Federation; [2]Military-Medical Academy, St.-Petersburg, Russian Federation*

Introduction From 2009 to 2011 in our randomised prospective, blinded clinical trial we studied the effect of polyunsaturated phosphatidylcholine—PUPC (Essentiale® forte N, A. Nattermann & Cie.GmbH) and Sibutramin in patients with obesity (BMI 30–35 kg/m^2). We studied 80 patients with obesity mean age of 38±7 years and 40 were males. High resolution B mode ultrasonography was carried out twice for screening NAFL patients and after 6 months treatment.

Methods Liver function markers ALT, AST and GGT were measured twice, before and after 6 months treatment. All patients followed the basic treatment scheme included dietary and physical regimen.