further worsen survival in these patients and therefore prophylaxis against bleeding may not offer a survival advantage in these patients, who should be considered early for transplantation. The apparent importance of GOV in terms of prognosis, and decision making to optimise outcome means that we should re-look at strategies to screen for GOV in PBC.

P37 PLATELET COUNT AND SPLEEN SIZE: AVOIDANCE OF SCREENING ENDOSCOPY FOR VARICES IN PATIENTS WITH HEPATITIS C CIRRHOSIS

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Introduction Many patients with liver cirrhosis, screened for oesophageal varices (OV) are found to have either no or insignificant varices, resulting in unnecessary procedures and financial burden. We had previously shown that the non-invasive parameters of platelet count and spleen size, measured by transabdominal ultrasound, were highly sensitive for the prediction of OV in patients with hepatitis C cirrhosis.

Aim To determine in a subsequent cohort of patients with hepatitis C cirrhosis whether such a clinical tool was accurate in determining which patients require endoscopic screening.

Method 246 outpatients with biopsy-proven hepatitis C cirrhosis over a 3-year period were studied retrospectively. Endoscopy should have been performed, according to our protocol, if any of the following parameters were met: platelet count $<100 \times 10^9/l$, spleen size ≥ 14 cm or specific ultrasound findings indicative of portal hypertension (recanalised paraumbilical vein, ascites, splenic hilar varices).

Results Of 246 patients, 98 patients underwent upper GI endoscopy, 76 of whom met criteria (78%). Of 148 patients who did not undergo endoscopy, 63 met criteria (43%). Endoscopic findings are summarised in the Abstract P37 table 1 below.

Abstract P37 Table 1 Endoscopic findings

	OGD		Predicted value	
	Significant varices (grade 2 or more)	Significant varices (grade 1 or nil)		
Platelet count/ spleen size/ US findings	Criteria met	14	62	14/76=18%, PPV
	Criteria not met	0	62	22/22=100%, NPV
		14/14=100%, Sensitive	22/84=26%, Specific	

Conclusion Using simple non-invasive criteria, screening endoscopy could be avoided in around 44% of patients with hepatitis C cirrhosis. Treatable varices would not be missed in this group.

P38 HOMODYNAMIC EFFECTS OF PROLONGED TREATMENT WITH MIDODRINE IN NON-AZOTEMIC PRE-ASCITIC, ASCITIC AND REFRACTORY ASCITES CIRRHOTIC PATIENTS

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Introduction Splanchnic arterial vasodilatation has related to hyperdynamic circulation and impaired natriuresis in advanced cirrhosis and was suggested to be responsible for the subtle sodium retention in pre-ascitic cirrhosis. α Adrenergic agonist may reverse this condition.

Aim This study aimed to evaluate the effects of treatment with the α 1-adrenergic agonist midodrine on systemic haemodynamics in non-azotemic cirrhotic patients.

Method 154 cirrhotic patients were studied. The patients were classified into: absent ascites, mild to moderate diuretic responsive ascites and refractory ascites. Patients were randomly selected to receive either oral midodrine 10 mg, three times a day or placebo. The following parameters were assessed for all patients: mean arterial pressure (MAP), cardiac output (CO), plasma rennin (PI R) and renal resistive index (RRI) at baseline, 7 days after administration of oral midodrine 10 mg, three times daily, and 3 months after administration of oral midodrine 2.5 mg, three times a day.

Results Midodrine administration induced a significant increase in MAP, CO and RRI at baseline, 7 days and 3 months after administration of oral midodrine 10 mg, three times daily, and 3 months after administration of oral midodrine 2.5 mg, three times a day.

Conclusion The administration of midodrine improves systemic haemodynamics associated with a suppression of the renin activity in cirrhotic patients without or with mild ascites. But had no effect in patients with refractory ascites.

P39 AN ANALYSIS OF REBLEEDING RATES FOR VARICEAL HAEMORRHAGE AT A REGIONAL CENTRE: WHAT IS THE APPLICABILITY AND POTENTIAL COST FOR EARLY TIPS?

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Introduction A recent randomised controlled trial demonstrated that the early use of TIPS in patients with Child-Pugh class B and C cirrhosis presenting with acute variceal haemorrhage was associated with a significant reduction in rebleeding and mortality.¹ However, it remains unclear whether an additional economic benefit exists with their approach compared to the current standard of care utilising pharmacological and endoscopic therapies, and rescue TIPS.

Aim We aimed to ascertain how many patients would benefit from early TIPS and the economic implications of introducing this into practice, by observing retrospective data from our tertiary care liver unit.

Method Consecutive patients admitted in 2009 with oesophageal variceal haemorrhage to a tertiary care liver unit at Nottingham University Hospitals (NUH) NHS Trust were identified retrospectively using a dedicated endoscopy database and cross-checking with the emergency medicine database. Patients with non-cirrhotic portal hypertension or isolated gastric varices were not included in our study. Standard management protocols including endoscopic therapy within 24 h, glypressin and prophylactic antibiotics were used. Data were collected on demography, aetiology, rebleeding related hospital admissions and mortality at 12 months. Costs of rebleeding were analysed for all patients meeting inclusion criteria for the original study¹ and included subsequent inpatient care costs and endoscopic/radiological intervention (figures were supplied by the NUH finance and procurement department and based on established national tariffs). The actual cost of rebleeding in our Child Pugh score 7–13 patients was compared to the theoretical cost of introducing early TIPS in this group.

Results 51 cirrhotic patients were admitted to our unit with oesophageal variceal bleeding. 20% of this cohort had Childs A, 40% Childs B and 40% Childs C cirrhosis. The rebleeding rate was 15% at 28 days and 34% at 1-year follow-up. The survival rates were 82% at 28 days and 40% at 1 year.

35 patients (70% of the cohort) had a Child Pugh score of 7–13. Within this subgroup there was a 31% rebleeding rate requiring

hospital admission over 12 months and 8% required a TIPS procedure within 12 months. The actual cost of rebleeding episodes for the selected subgroup was 138 446, (3955 per patient). The theoretical cost of early TIPS in this group was calculated as 117 670, (3362 per patient). Assuming a rebleeding rate of 3% with early TIPS¹, this strategy has a potential cost reduction of 7% per patient outcome year compared with current standard management.

Conclusion The proportion of variceal bleed patients benefitting from early TIPS could approach 70% in regional centres. This has implications for the provision and organisation of interventional radiology services. Our retrospective analysis suggests marginal cost benefit, complementing the previously observed reduction in rebleeding and mortality; however prospective studies are needed to confirm this.

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P40 FAST TRACK JAUNDICE CLINIC: THE STANDARD OF CARE FOR HEPATOBIILIARY MALIGNANCY?

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Introduction The Scottish Government has stated that 95% of people referred urgently with a suspicion of cancer should begin treatment within 62 days of receipt of referral.¹ Dedicated fast track clinics with pre-booked appointments and scheduled investigations with rapid reporting can ensure urgent referrals are processed within appropriate timescales.² Hepatobiliary malignancy often presents with jaundice and therefore The Fast Track Jaundice clinic was established in NHS Grampian in June 2006.³ Its aim was to provide rapid diagnosis of jaundiced patients enabling early management or treatment. This protocol driven clinic is run by the Hepatology Nurse Specialist with medical support. Referrals are faxed and patients who meet the criteria for the clinic are contacted by telephone and given an appointment date and time within a week of referral. The clinic operates weekly with three reserved appointment slots for ultrasound and two for CT scan. Endoscopic Retrograde Cholangiopancreatography (ERCP) is available three times per week.

Aim The aims of this study were: To describe the demographics and diagnoses of patients referred with jaundice. To assess the time from referral to treatment in patients presenting with malignancy.

Method The information was obtained from the NHS Grampian Fast Track Jaundice clinic Microsoft Access database and the hospital Patient Management System (PMS). The Scottish Care Information (SCI) store and hospital LABS system were accessed to obtain dates of investigations and results.

Results In total there were 172 referrals and all but one attended. The majority, 150 (87%) were referred by their GP, the remainder came from a variety of sources. The number of referrals has increased each year. The mean age at date of clinic appointment was 63 years (range 18–94, SD 16.7) and 116 (67%) were male. The median number of days from referral to clinic appointment was 5 (range 0–20, IQR 2). The reasons that patients waited longer than expected for a clinic appointment included: patient choice, inability to contact the patient and lack of capacity at next clinic. The aetiology of jaundice was: gallstones 65 (38%), malignancy 50 (29%), alcohol hepatitis 19 (11%), or an alternative diagnosis in 37 (22%). A CT scan was required for diagnostic or staging purposes in 90 (53%) with 74 (82%) of CT scans performed on the same day as the clinic. The CT scan had been performed prior to the clinic in 2 (2%) with the remaining scans occurring sometime following clinic.

Of the 50 patients with a malignancy, 13 (26%) had surgery with only 2 operations being outwith the 62-day timeframe (median time

from clinic 36 days (range 4–99, IQR 38)). Of the remaining 37 (74%) who did not have surgery, 23 (62%) had ERCP (median time from clinic 3 days (range 1–38, IQR 7)) and 6 (16%) had PTC (mean time from clinic 9 days (range 4–16, SD 4.32)). The remaining 8 (22%) presented with such advanced disease that only palliative care was offered. Of those with malignancy 33/50 (66%) have died with a median time from clinic to death of 127 days (range 5–781 IQR 344).

Conclusion The introduction of The Fast Track Jaundice Clinic has resulted in patients with malignancy having clinical review and investigations performed rapidly with >95% receiving definitive treatment within 62 days of referral. The recognition of this service in providing timely, appropriate care has resulted in a steady increase in the number of referrals. We suggest that this model of service delivery should be considered as the standard of care for patients with suspected hepatobiliary malignancy presenting with jaundice.

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P41 LIVER DISEASE-SPECIFIC GENE EXPRESSION PROFILE IN HEPATOCELLULAR CARCINOMA

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Introduction In the UK, hepatocellular carcinoma (HCC) has the largest increase in cancer mortality of all cancers over the last decade. Although it is well known that the most important risk factor for HCC development is liver cirrhosis, the specific role of liver disease aetiology in promoting cancer development remains under-explored. We hypothesised that different liver diseases might drive HCC development by expression of different sets of genes. Identification of liver disease-specific genes could be applied to developing disease-specific diagnostic markers or therapeutic targets.

Aim To compare global gene expression profiles from HCC arising in different liver diseases, using our own and publicly available data.

Method Fresh-frozen liver samples were collected from normal liver (4) and both background liver (7) and HCC (7) from patients with haemochromatosis (HH) undergoing liver transplantation or resection for HCC. RNA was extracted using a phenol-chloroform method, assessed for quality then hybridised to Affymetrix

Normal vs. HH-related HCC Normal vs. HBV-related HCC

Abstract P41 Figure 1 Venn diagram showing number of differentially expressed genes in HCV, HBV and HH related HCC compared to normal liver.