bundle was poor. Following this study, we plan to implement a care bundle systematically to further evaluate patient outcomes.

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PTU-015 NATURAL HISTORY OF VARICES IN THE ERA OF NON-INVASIVE ASSESSMENT

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Introduction Guidelines recommend endoscopic variceal screening and surveillance in patients with cirrhosis.¹ The rate of development of large oesophageal varices needing treatment appears to be 7–8% per year.^{2,3} However, with a growing proportion of diagnoses also now being made by Fibroscan we hypothesize that this rate may be lower.

Methods We performed a case note review of 304 patients with a liver stiffness measurement (LSM) more than 15 kPa on Fibroscan between April 2012 and February 2016. Patients also had to have an endoscopy within 6 months to be included. We excluded patients with previous decompensation, hepatocellular carcinoma, inaccurate LSM (IQR >30%) or LSM felt to be aberrant by the clinician based on clinical, radiological or histological grounds. For patients with hepatitis C (HCV) we used post-SVR LSM. We recorded sex, age, aetiology of liver disease, LSM, platelet count, endoscopic findings at 0–6 months and at 24–48 months, duration of follow-up, incidence of bleeding or death. Varices were documented as absent, small or large.

Results 113 patients were included. The most common aetiologies were non-alcoholic fatty liver disease (36.2%), alcoholic liver disease (29.3%) and HCV (20.7%). Mean age was 59.3 ± 11.5 years. LSM was 33.4 ± 17.1 kPa. Median follow-up was 4 years. Baseline endoscopy revealed no varices in 76 patients (67.3%), small varices in 29 patients (25.7%) and large varices in 8 patients (7.1%). 6 of the patients (5.3%) had a variceal bleed within 12 months. All large varices underwent band ligation (VBL) as per local practice. 58 patients went on to have a repeat endoscopy at 24–48 months. There was no progression of absent/small varices in 50 patients (86.2%) and a static gastric varix in 1 patient (1.7%). There was progression to large varices in 7 patients (13.8%) including 1 variceal haemorrhage.

Conclusions In our group of patients with compensated cirrhosis the rate of development of clinically significant varices over 3 years appears to be lower than previous estimates. Weaknesses of the study include its retrospective nature and drop out rate. However, the findings would fit with our perception of an increased rate of diagnosis of advanced chronic liver disease by Fibroscan. The natural history of varices may be different to historic populations diagnosed on histological grounds or overt clinical and radiological features.

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PTU-016 EFFECTIVENESS OF A NURSE-LED FIBROSCAN SERVICE TOWARDS ENHANCED CARE IN LIVER DISEASE

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Introduction and aims Fibroscan as a convenient, non invasive tool for classification of Liver Stiffness (KPA) and fat component (CAP) has gained popularity in the hospital as well as community health services. With burden of liver disease significantly affecting the NHS in terms of finances as well as mortality, an accurate measure of the liver parenchyma assists in delivery of safe enhanced care. We present our nurse led fibroscan service in comparison to conventional modalities in the management of liver disease.

Methods 273 patients were referred to the Nurse led Fibroscan service from July 2017–July 2018. The Fibroscan readings were then compared to the Ultrasound scan (USS), biochemistry and liver biopsy results. British Society of Gastroenterology (BSG) guidelines were then used to appropriately escalate or de-escalate these subjects.

Results Out of 273 patients referred 30 were excluded due to difficult procedures.

Out of 243 screened, 52.68% were female. An average age of 53.9 years was seen (Median 55, IQR 19). The Fibroscan results were classified into Normal, Fatty Liver, Fibrosis and Cirrhosis based on KPA and CAP as per the manufacturer guideline for different etiology. Average Alanine transaminase (ALT) of 49.22 was seen

Fibroscan results showed Normal = 24 (9.87%), Fatty Liver = 122 (50.2%), Fibrosis = 54 (22.2%) and Cirrhosis 43 (17.69%) and compared to USS.

Of the 48 subjects who had Normal USS, 22 showed fatty liver, 9 had fibrosis and 2 had cirrhosis on fibroscan showing a 68.75% (n=33) variance in diagnosis indicating a worsening stage of liver disease.

Of the 123 that had fatty liver on USS, 81 had the same diagnosis on fibroscan too. There was variance in 34.14% subjects (n=42) with 3 showing a better diagnosis having Normal fibroscan and 23 and 16 subjects showing fibrosis and cirrhosis respectively, indicating a worsening diagnosis. As per BSG guidelines, fatty liver disease and ALT of below 50 can be discharged back to the care of GP. 63 (51.2%) of these patients were hence safely discharged in this manner.

70 subjects had Cirrhosis on USS, 11 were normal on fibroscan, 14 showed fatty liver and 20 showed fibrosis indicating the variance to be 50% (n=45) towards a favourable prognosis.

The total variance in diagnosis was noted in 122 (50.2%) of the subjects from USS to fibroscan, with 41% (n=50) having a better stage and 72 (59%) showing worse stage of disease.

44 of these subjects underwent liver biopsies which correlated to the above findings in similar percentage.

Discussion Nurse led fibroscan service shows effective monetary benefit in good enhanced care of liver disease. It gives a more accurate diagnosis as compared to USS and also helps in avoiding the invasive liver biopsy in majority of the cases. Utilised in a correct manner it can help in appropriate care of the liver disease patients.

PTU-017 SEPSIS OUTCOMES IN PATIENTS WITH LIVER DISEASE

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Introduction Pre-existing liver disease (LD) has long been recognised as a risk factor for the progression of infection to sepsis and increased morbidity and mortality after sepsis episode. Recently it has been questioned what proportion of patient death is directly attributable to sepsis and focus on the role of pre-admission characteristics is emerging. The aim of this study was to investigate the predictive capabilities of sepsis screening tools in sepsis recognition in patients with LD. We also wanted to determine the characteristics, outcomes and proportion of death attributable to sepsis in LD patients.

Methods Secondary analysis of outcomes for patients with LD was performed on patient population recruited into two annual 24-hour prospective point-prevalence studies on the general wards and emergency departments across 15 Welsh hospitals in 2016 and 2017. Inclusion criteria were: patient age >18, clinical suspicion of infection and NEWS ³. Patient basic demographics; observations, laboratory results and SIRS, SOFA, qSOFA scores were collected. Patients were followed-up for 90 days. Deaths attributable to sepsis were evaluated based on microbiological, radiological and laboratory evidence. **Results** Out of 839 recruited patients, 24 (2.9%) had past medical history of LD. 12/24 (50%) had SIRS score ≥ 2 , 21/24 (87.5%) had SOFA score ≥ 2 and 3/24 (12.5%) had qSOFA score ≥ 2 . LD patients had higher total SOFA scores than non-LD patients (SOFA score median 4 (0–14) and 2 (0–11), respectively, $p=0.001$) and SOFA ≥ 2 was more frequent in LD patients ($p=0.009$). LD patients were not significantly different than non-LD patients in terms of their frailty score, DNACPR order in place and ceiling of care. There were no significant differences in management of LD in comparison to non-LD patients in terms of Sepsis Six delivery, review by senior clinicians and antibiotic use. Patients with liver disease had lower survival rate ($p=0.028$) but none of the deaths could be directly attributed to sepsis.

Conclusions It appears that SOFA based criteria is the best screening tool to discover patients with liver disease at risk of sepsis. The 90-day mortality was greater in liver patients than the rest of the population, but we could not find any link between sepsis and outcome, further strengthening previous observations that the mortality attributed to sepsis could be falsely inflated. It appears patient outcomes could be primarily determined by their underlying condition and infection (or the treatment of a potential infection) could have marginal effect on patient outcomes.

PTU-018 ANALYSIS OF BEDSIDE PREDICTORS OF SURVIVAL FOLLOWING TIPSS FOR REFRACTORY ASCITES IN A REGIONAL CENTRE

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Introduction Prognosis in refractory ascites (RA) is poor and patient selection for TIPSS challenging. In 2011 Bureau et al identified Bilirubin <50 $\mu\text{mol/L}$ and platelet count $>75 \times 10^9/\text{L}$, the 'Bureau Criteria' (BC), to be predictive of survival post-TIPSS in 73% vs 31% in those out with the BC. Age over 65 yrs has also been considered a risk factor for poor outcome post-TIPSS. In this study we analyse the BC and age in a Glasgow cohort.

Methods Retrospective analysis of all patients undergoing TIPSS for RA between 2011–17 in Glasgow was undertaken. Baseline pre-TIPSS data was recorded and actuarial survival at 1 year assessed in 2 groups: those that did, and did not, fulfil the BC. Age >65 , in isolation of other variables, with 1 year survival was also assessed.

Results 31 patients underwent TIPSS for RA in this 7 year period. Liver disease aetiology was alcohol ($\pm$ Hepatitis C) in 87%. At baseline pre-TIPSS the mean age was 58.1 yrs (range 36–79), MELD 12.5 (7–21), Bilirubin 30 (5–127) and Platelet count 161 (15–364). 22 patients fulfilled the BC, 2 were transplanted within 1 year of TIPSS. None of the 9 non-BC patients were transplanted. Actuarial 1 year survival was 14/22 (63.6%) in the BC group and 3/9 (33.3%) in the non-BC group. Of the 6 patients over 65 yrs, all - except 1 who was transplanted - died within 1 year of TIPSS, this was despite 5 of those 6 fulfilling the BC. Mean transplant-free survival in patients over 65 yrs was 4.1 months (Range 0.75–8 months). Of those that were both <65 yrs and fulfilled BC, 1 year actuarial survival reached 70.5%.

Conclusion The combination of bilirubin <50 and platelet count >75 is predictive of survival post-TIPSS for refractory ascites in our regional cohort and these outcomes are similar to those in the published literature. However, regardless of the bilirubin and platelet count, great caution should be exercised when considering TIPSS in any patient over the age of 65.

PTU-019 REDUCE STUDY: QUALITATIVE OUTCOMES FROM A MULTI-CENTRE MIXED-METHODS FEASIBILITY RCT IN CIRRHOSIS-RELATED PALLIATIVE REFRACTORY ASCITES

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Introduction The REDUCE study is a mixed methods feasibility randomised controlled trial (RCT) comparing palliative long term abdominal drains (LTAD) with standard care, recurrent large volume paracentesis (LVP) in advanced cirrhosis and