LSM ≥ 10 –15 kPa and 124/557 patients (22.3%) with a LSM > 15 kPa were identified as having regular surveillance for HCC.

Conclusions This study shows that information routinely collected in EHR can be used to evaluate screening and surveillance strategies in patients with cirrhosis. Only a minority of patients had undergone the recommended interventions within the definitions of this study. This highlights the potential for a cirrhosis registry to impact on patient care and to improve outcomes for patients with cirrhosis.

PWE-090

WEST MIDLANDS MULTI-CENTRE TRAINEE-LED AUDIT IN THE ASSESSMENT, MANAGEMENT AND PROPHYLAXIS OF SPONTANEOUS BACTERIAL PERITONITIS

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Introduction Spontaneous bacterial peritonitis (SBP) is a common but potentially fatal complication in patients with cirrhosis and ascites. In the first audit performed by West Midlands Research in Gastroenterology (WMRIG) trainees, we aimed to assess practice of assessment, management and primary and secondary prophylaxis of SBP according to national standards, in addition to the feasibility of regional project delivery.

Methods This trainee-led, retrospective, multi-centre study identified patients admitted with cirrhosis and ascites between Sep-Dec 2016. Outcomes of SBP and mortality were retrospectively followed-up for up to 1 year (median 8 months). Practice was audited against EASL, BSG and NICE standards. Heterogeneity between sites was assessed with χ^2 and time-to-event analyses undertaken using Kaplan-Meier plots.

Results Trainees across 8 West Midlands hospitals identified 227 patients (mean age 58, SD 13; 65% male) with 282 admissions. Cirrhosis was attributed to alcohol (79%), NAFLD (10%), autoimmune (4%) and viral (3%), and was graded Child-Pugh B in 48% and C in 49%. 18% were elective admissions and 7% had a previous history of SBP. Ascitic aspirates were performed in 83% (range: 60%–92%, $p=0.019$), in < 24 hours in 64% (range: 49%–85%, $p=NS$), and cultures sent in 55% (range: 11%–86%, $p<0.001$). 16.8% of aspirates met criteria for SBP: antibiotics were commenced in 92% ($p<0.001$), Day 1 albumin in 64% ($p=NS$), Day 3 albumin in 40% ($p=NS$), and secondary prophylaxis in 44% ($p=NS$). Repeat aspirate to ensure SBP resolution was performed in 33% (range: 0%–52%, $p=NS$). In patients without SBP, ascitic protein was measured in 46% (not available in 3 Trusts). 32 (67%) met criteria for primary prophylaxis (protein ≤ 15 g/L); which was commenced in 4 (13%, range 0%–100%, $p=NS$). Mortality occurred in 51%. SBP was associated with lower median survival (79 days vs. non-SBP: 190 days, $p=0.045$) [figure 1]. Emergency admission (HR 8.4, $p=0.039$), older age (HR 1.03 per increase, $p=0.017$) and ascitic protein ≤ 15 g/L (HR 2.27, $p=0.042$) were multivariate predictors of reduced survival. SBP occurred after discharge in 8 patients (4%) after a median interval of 32 days.

Conclusions Our pilot study has been successful in highlighting deficiencies and variations in the assessment, management and prophylaxis of SBP. These Results will inform and prioritise

future regional quality improvement strategies to improve outcomes in patients with advanced chronic liver disease.

Abstract PWE-090 Figure 1 Effect of SBP on survival

PWE-091

L-ORNITHINE L-ASPARTATE IN MINIMAL HEPATIC ENCEPHALOPATHY: POSSIBLE EFFECTS ON THE BRAIN-MUSCLE AXIS?

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Introduction L-Ornithine L-Aspartate (LOLA) is an ammonia-lowering agent for treatment of hepatic encephalopathy (HE); it may reduce sarcopenia. We investigated 12 weeks of oral LOLA in patients with compensated cirrhosis and minimal HE (MHE).

Methods Consecutive patients were pre-screened with paper-and-pencil-based psychometric testing (PHES test) and included if performance was impaired to a level of -4 or worse. 34 English-speakers were included; 12 randomised to 12 weeks oral LOLA 6 g tds, 22 randomised to identical-looking placebo. At baseline, 4 and 12 weeks, subjects had PHES, a computerised battery: CogstateTM and SF-36 health questionnaires. Markers of muscle function were recorded: handgrip strength, skin fold thickness, and 6-minute-walk-test. Subjects had cerebral T₁ and T₂ MRI, functional MRI (fMRI) with motor/cognitive tasks/resting state studies; and ¹H MRS. LC Model software was used for metabolite identification.

Results On SF-36, 57% on LOLA reported better energy levels than placebo 0.04% (P-value <0.001). Better concentration was reported by 21% in treatment arm vs none in placebo group ($p=0.05$). 28% reported improved memory in treatment group vs 0.04% with placebo. Sleep improvements were reported by 35% in treatment arm vs 0.09% on placebo ($p=0.05$). In both groups, changes in total PHES score and CogstateTM were non-significant. PHES test sub-analysis of the Digit-Symbol showed significant improvement in performance in LOLA-treated group ($p=0.05$). Biceps skinfold thickness showed a mean gain of 1.5 mm in the LOLA group with mean loss of 1.0 mm ($p=0.05$) in placebo. No differences were found in other skinfolds, hand-grip or 6-minute-walk-test. On T₁ cerebral MRI, significant volume reduction was seen in left lateral ventricle, right globus pallidus and mid-anterior corpus callosum (ACC). fMRI tasks did not vary between groups. ¹H MRS of ACC showed significant changes in glutamate concentration ($p=0.03$), after LOLA.