Introduction The global incidence of HCC is rising and it is the third most common cause of cancer-related death worldwide. Surveillance of at risk patients has been recommended by expert guidelines to detect early cancers that are amenable to curative treatments. AASLD has recommended HCC surveillance for non-cirrhotic HBV-positive Asian males over 40 and females over 50yrs of age. However, the evidence to support this recommendation is limited and is derived from studies conducted in Asia. Results from such studies may not be applicable in the West, due to differences in environmental risk factors and availability of HBV treatment. Implementation of such a recommendation would place a burden on healthcare resources, and may not be justified if the risk for HCC is substantially lower than previous estimates in this population.

Methods A retrospective study was carried out of all Asian patients undergoing follow up for HBV infection from 1990 to 2012. Patients were classified as cirrhotic or non-cirrhotic according to clinical, biochemical, radiological and histological results. Follow-up was until September 2012, and was censored at time of death, development of cirrhosis or loss to follow-up.

Results Among 316 identified Asian patients with HBV, 73 non-cirrhotic patients fulfilled the proposed AASLD surveillance criteria, either at time of initial referral or during the period of follow-up. The median at-risk follow up period (as defined by AASLD guidelines for non-cirrhotic Asians) was 57 months (range: 0–354 months). HCC was diagnosed in one non-cirrhotic patient after 77 months of follow up (male, 60yrs), two patients became cirrhotic after 49 and 89 months (male, age 46 and 55yrs) and no deaths occurred. The overall incidence of HCC in the non-cirrhotic cohort meeting the AASLD surveillance criteria was 1 per 429.5 patient-years of follow-up (0.23% per patient-year).

Conclusion The incidence of HCC in Asian patients with non-cirrhotic HBV is low in our cohort. This low incidence challenges the rationale for surveillance in this group of patients. More studies are needed to assess the benefit of such approach.

Disclosure of Interest None Declared.

PWE-114 FACTORS AFFECTING THE RISK OF RELAPSE TO DRINKING ALCOHOL FOLLOWING LISTING FOR TRANSPLANTATION FOR ALCOHOL-RELATED LIVER DISEASE

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Introduction Alcohol-related liver disease (ALD) is one of the commonest indications for liver transplantation, but relapse to drinking alcohol in this group of patients is a significant concern. Clarification of risk factors that can predict relapse is needed in the UK, so that additional support can be provided for those at increased risk.

Methods Patients being considered for liver transplantation as a result of ALD in Leeds undergo thorough assessment by an alcohol professional. Particular emphasis is placed on the risk of recidivism to drinking, using 2 scoring systems. One of these, the High-risk Alcohol Relapse (HRAR) Score, focuses on prior alcohol consumption history, whereas the Relative Risk Factors for Relapse (RRFR) Score addresses psychosocial dysfunction. However, neither of these scoring systems is used to determine suitability for transplantation.

Scores were evaluated in those known to have returned to drinking alcohol after listing for transplantation, either by self-report or by random blood alcohol testing. These scores were compared to listed patients considered to be abstinent. We also assessed whether duration of self-reported abstinence or family history of alcoholism were greater in those who relapsed.

Results Between September 2008 and August 2010, 58 people with ALD were listed for liver transplantation. Of these, 12 are known to

have returned to drinking alcohol, either whilst listed or post-transplant.

There was no significant difference in the relapsers compared to the non-relapsers according to gender (0.67% vs 0.73% were males, $P = 0.45$) or age (median 50 vs 54 years, $P = 0.09$).

The median RRFR scores were significantly higher in the relapsers compared to the non-relapsers (14.5/27 vs 12/27; $P = 0.01$). The median HRAR scores were identical in the 2 groups (median scores 2/6; $P = 0.28$).

There was no significant difference in duration of self-reported abstinence between relapsers and non-relapsers (13 vs 10 months; $P = 0.26$). There was also no difference in family history (where known) of alcoholism between the 2 groups (1/10 vs 8/39; $P = 0.4$).

Conclusion Psychosocial dysfunction is significantly greater in patients with ALD who relapse to drinking alcohol following listing for transplantation. Psychological support may therefore reduce the risk of relapse in these patients. The predictive utility of the HRAR score was poor in this cohort of patients.

Disclosure of Interest None Declared.

PWE-115 ALPHA-FETOPROTEIN MEASUREMENT IN THE DIAGNOSIS OF HEPATOCELLULAR CARCINOMA IN REAL-LIFE PRACTICE: A MULTI-CENTRE, RETROSPECTIVE ANALYSIS

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Introduction In hepatocellular carcinoma (HCC), earlier diagnosis improves outcome but the optimum method of surveillance in high-risk groups is controversial. Recent AASLD and EASL guidelines[1,2] have recommended six-monthly ultrasound surveillance (USS) alone. British guidelines[3] currently recommend combining serial alpha-fetoprotein (aFP) measurements with six-monthly USS. This study aimed to assess the role of aFP measurement in HCC surveillance programmes.

Methods This large retrospective multicentre study assessed newly diagnosed HCC over a 5-year period (2006–2011) at three centres: two general hospitals and one tertiary referral centre. Electronic and multi-disciplinary team data were reviewed.

Results 111 patients with a confirmed diagnosis of HCC were identified. Of these, 91(81.9%) were male and the median age was 69 years (range 24–87). 52(46.8%) patients with newly diagnosed HCC had established liver disease prior to diagnosis. Of these, 21(40.4%) were participating in combined USS-aFP surveillance, 2(3.8%) USS alone and 1(1.9%) aFP alone. A diagnosis of HCC was confirmed by liver biopsy in 43(38.7%), CT in 41(36.9%), MRI in 25(22.5%) and USS combined with elevated aFP in 2(1.8%).

At diagnosis, aFP was elevated in 81(73.0%), normal in 22(19.8%) and unmeasured in 8(7.2%) patients. Of those 21 diagnosed in an established surveillance programme of six-monthly USS and aFP, 17(81.0%) showed a rise in aFP. When assessing the trigger for confirmatory cross-sectional imaging ± biopsy across all data, a solely elevated aFP prompted further investigation in 11(9.9%); in those under surveillance, this number was 7(29.2%) with no abnormality detected on USS within the preceding three-month period in 6(85.7%) of these.

Conclusion These results demonstrate that a significant number of patients would have had a delayed diagnosis of HCC if aFP measurement was removed from UK screening programmes. Potential contributing factors limiting the success of USS-based screening programmes include: small lesion size, sonographer error, patient factors limiting USS accuracy (e.g. body habitus) and irregular attendance for USS. This study supports continued

serial measurement of aFP in patients with liver cirrhosis in contrast to European and American guidelines.

Disclosure of Interest None Declared.

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PWE-116 LIVER STIFFNESS MEASUREMENT PREDICTS RESPONSE TO ANTI-VIRAL TREATMENT IN PATIENTS WITH CHRONIC HEPATITIS C GENOTYPE 3

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Introduction Chronic hepatitis C virus infection (HCV) is a common cause of cirrhosis and end-stage liver disease. Pegylated interferon (PEG-IFN) and ribavirin (RBV) is currently the treatment of choice for genotype 3 (G3) HCV resulting in a sustained virological response (SVR) in 70–80%. Advanced fibrosis is known to be associated with failure of antiviral therapy. Increasingly, liver stiffness measurement (LSM) is being used to non-invasively assess fibrosis. However, it is not known whether LSM predicts response to antiviral therapy and whether there are predictive cut-offs. Our aim was to assess whether baseline LSM can predict SVR in HCV G3 patients treated with PEG-IFN+RBV.

Methods Retrospective review of outcomes in naive patients with HCV G3 treated with PEG-IFN+RBV in our clinic from Jan 2007 to Oct 2011. Post transplant and co-infected patients were excluded. Patients with a valid LSM within 1 year of starting treatment who completed > 12wks and recorded outcome of treatment were included in the LSM analysis.

Results 144 patients (mean age 40±10 years, 56% male, 16% cirrhotic, and 42% high viral load) received PEG-IFN+RBV for HCV in the study period. 92% completed > 12 wks treatment. 92 (64%) of patients had a valid LSM (median 6.5kPa; 3.5kPa to 39.1kPa). 24% had a LSM > 10.6kPa consistent with advanced fibrosis. The overall SVR rate was 68%. 11% were lost to follow up and the outcome unknown. LSM was significantly associated with SVR ($p = 0.001$). The AUROC for LSM in predicting treatment response was 0.74 (95% CI 0.58–0.90). The optimum cut-off to predict non-SVR was 10.6kPa (69% sensitivity, 85% specificity). 90% with LSM ≤ 10.6kPa achieved SVR versus 47% with LSM > 10.6kPa ($p < 0.001$). All patients with low viral load (< 600,000 IU/ML) and LSM < 10.6 kPa who had > 12 wks treatment achieved SVR ($n = 33$).

Conclusion Fibrosis assessed non-invasively with LSM can help predict response to antiviral therapy in patients with HCV G3. LSM (> or < 10.6kPa) could be factored into treatment algorithms to determine the optimum treatment course lengths.

Disclosure of Interest None Declared.

PWE-117 PREVALENCE OF FALLS IN THE UK PBC POPULATION

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Introduction Previous studies have documented the prevalence of falls in PBC in a geographical area but there is no published data on the prevalence of falls in a national UK PBC cohort. Prevalence of falls was reported as 70% in the Newcastle-upon-Tyne cohort. Risk factors for falls are known to be prevalent in people with PBC, particularly autonomic dysfunction and lower limb muscle weakness and combined with the high prevalence of osteoporosis this carries

a significant risk to the patient from falls and falls related injuries with the associated healthcare and financial implications. This study aimed to assess the prevalence of falls in the National PBC cohort as well as associated falls related injuries and related hospital admissions. We also explored the relationship between falls and autonomic symptoms.

Methods Symptom assessment tools were completed by patients as part of the UKPBC genetics study. Information about falls and associated injuries was collected using a standardised data capture tool and autonomic symptoms were quantified using the Ortho-static Grading Score.

Results Data was collected on 2328 patients with PBC from all around the UK. 862 (37%) of PBC patients had fallen, 118 (8%) were current fallers (one fall within the past year) and 414 (17.7%) were recurrent fallers (more than one fall in the past year). 35% of patients attended A&E following their fall with 9.7% of fallers requiring admission as a consequence of their fall and 24% of PBC patients who fell sustained a fracture.

Fallers were significantly more likely to be diabetic (diabetes present in 5.7% of non-fallers and 12.2% of fallers, $p < 0.0001$) and more likely to be taking cardioactive medication (29% in non-fallers and 71% in fallers, $p < 0.0001$). Autonomic symptoms were significantly more prevalent in those PBC patients with recurrent falls (mean OGS 5.44, SD 4.15) compared to non-fallers (mean OGS 2.38, SD 2.13) and infrequent fallers (mean OGS 3.2, SD 3.36) $p < 0.0001$.

Conclusion A significant percentage of patients with PBC are falling, sustaining fractures and being admitted to hospital following a fall. This has huge implications for patients with PBC in terms of morbidity, mortality and quality of life. The high prevalence of autonomic symptoms in the population that fall demonstrate the importance of considering this symptom in all PBC patients as there are a number of interventions that can be implemented. Patients that fall often have more than one risk factor and this study demonstrated this as autonomic symptoms, diabetes and the presence of cardioactive medications were all more common in the cohort of fallers therefore all patients with PBC need a careful assessment for the presence of falls risk factors and a multidisciplinary approach to reduce the risk of falls.

Disclosure of Interest None Declared.

PWE-118 AN AUDIT OF HEPATITIS C TESTING AND REFERRAL PATTERNS

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Introduction The Hepatitis C action plan of 2004 identified a need to “reduce the level of undiagnosed infection and provide better, more co-ordinated pathways of care for people with hepatitis C, from their initial diagnosis to specialist care and treatment”(1). Our aim was to audit the outcome of Hepatitis C testing in a large secondary care facility in UK against the established management pathway (2).

Methods Using the hospital microbiology database, we identified 3166 requests for hepatitis C serology from January to December 2011. All positive results were retrospectively analysed at least 12 months after test requests, to include: referral source, demographics, route of acquisition etc. In addition, evidence of HCV PCR testing, outpatient referral and outcomes were sought from referrers and laboratory records.

Results Age range of Hepatitis C positives was from 10 months to 71 years. 41% referrals came from primary care and drug dependence services, 30% from medical service, 5% from obstetrics and 5% from GUM. 76% had acquired HCV from intravenous drug use. Alcohol dependence was recorded in 34%. Of 122 positive