cardiovascular disease to reduce metabolic risk. A multidisciplinary approach involving hepatologists and diabetologists alongside allied health professionals providing structured lifestyle advice is advocated. Objective evaluations of this approach are limited.

Methods We undertook a retrospective study to determine the impact of a large, tertiary centre, multidisciplinary metabolic hepatology clinic. Detailed health parameters and surrogate markers for liver and cardio-metabolic disease were evaluated and a health economic analysis was performed.

Results 165 patients with NAFLD without hepatic co-morbidity and excluding those undergoing bariatric surgery, and who attended ≥ 2 times between 2014–17, were followed from referral until latest review. Median follow-up was 13 months (2–34). At baseline, 29% had cirrhosis and 59% had T2DM. At follow-up, median liver stiffness, measured using transient elastography, decreased by 1.3 kPa (14%, $p=0.0097$) and was associated with significant improvement in alanine aminotransferase (ALT: -11IU/L , 21%, $p<0.0001$). Median weight fell by 3.3 kg (3.4%, $p=0.0005$) as did total cholesterol (0.7 mmol/L; 14%, $p=0.0023$). Median HbA1c also fell (1.5 mmol/mol, 3.1%, $p=0.0045$). Reduction was most marked in those with poorly controlled T2DM (HbA1c >58 mmol/mol at baseline: 14 mmol/mol, 18%, $p<0.0001$). These improvements resulted in a 6.4% reduction in 10 year cardiovascular risk (QRISK3, aged-match, $p=0.0085$).

Preliminary economic analysis of our approach using the UKPDS Outcomes Model in patients with poorly controlled diabetes indicated improvement in quality adjusted life expectancy alongside a reduction in costs of complications if health improvements were maintained. Importantly, preliminary estimates appeared to be below the cost-per-QALY (quality adjusted life year) threshold of £20 000 for commissioning health interventions, suggesting a cost-effective approach.

Conclusion Our Results demonstrate that the liver and cardio-metabolic health of patients with NAFLD managed through a multidisciplinary approach show significant improvements. Patients with poorly controlled T2DM had the greatest improvement in HbA1c of a magnitude known to reduce complications, which may potentially confer good benefit to patients in slowing NAFLD progression. Furthermore, our economic analysis suggest that this approach may be cost-effective.

PWE-076 IMPACT OF CIRRHOSIS SEVERITY ON SURVIVAL IN HEPATOCELLULAR CARCINOMA

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Introduction Treatment allocation and overall survival in hepatocellular carcinoma (HCC) is determined by both cancer characteristics and the severity of underlying liver disease. Treatments with the greatest chance of providing cure are often contraindicated by advanced cirrhosis. Routine healthcare data may be used to establish survival following different treatment modalities, but in the absence of biochemistry laboratory Results, few data exist to determine cirrhosis stage at HCC presentation in population-based studies. We present the Results of a pilot study to determine liver disease severity

using routinely collected diagnosis and treatment codes related to cirrhosis in hospital episodes at a regional hepatobiliary cancer centre in the UK.

Methods All patients registered within three local Leeds clinical commission groups (CCGs) with a new diagnosis of HCC over a two year period (January 2013 to December 2014) were identified. Using hospital episode codes related to varices and ascites, an algorithm was developed to determine cirrhosis severity as defined by the Baveno stage. Patients were stratified according to decompensation status: compensated cirrhosis by Baveno 1 and 2 and decompensated cirrhosis by Baveno 3 and 4. This staging was validated by comparison with clinical records. Data related to demographics, liver disease aetiology and treatment allocation were collected, along with laboratory data to compare with MELD and Child Pugh (CP) scores. Kaplan-Meier survival analysis was used to compare outcomes by liver disease severity.

Results Among 78 patients with a new diagnosis of HCC (median age 69 years, 61 (78%) male), 54 patients (69%) had evidence of cirrhosis at presentation. The most frequent underlying disease aetiologies were hepatitis C (26%) and alcohol-related liver disease (24%). Patients with compensated cirrhosis had a median survival of 22.9 months and those with decompensated cirrhosis it was 2.6 months ($p=0.014$). The decompensated group had a median CP score of 9 and MELD of 13, compared with a median CP score of 5 and MELD of 10 in the compensated group. The Baveno algorithm correctly determined the Baveno score in 53/54 (98%) patients with cirrhosis.

Conclusions This pilot study demonstrates the successful use of an algorithm to determine Baveno stage using diagnosis and procedure codes from inpatient hospital episodes. This scoring system correlates with other validated prognostic scores in cirrhosis. In patients with HCC, the severity of the underlying liver disease must be assessed when considering outcomes for these individuals. It is expected that this algorithm will be used by the HCC-UK/National Cancer Registration and Analysis Service partnership in forthcoming population-based studies of HCC outcomes in England.

PWE-077 SCREENING FOR NON-ALCOHOLIC FATTY LIVER DISEASE IN PRIMARY CARE USING SIMPLE FIBROSIS MARKERS

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Introduction Non-alcoholic fatty liver disease (NAFLD) is a significant public health concern. Rates are increasing due to increasing levels of obesity. Early identification of patients in primary care could prevent progression to end stage liver failure. The aim of this project is to pilot introduction of a screen for NAFLD and liver fibrosis into the existing NHS Health Check. Simple fibrosis scores have been extensively evaluated in a secondary care setting, however their utility in primary care has not been established.

Methods Five GP practices took part in the pilot. The NHS Health Check is offered by GPs to any patient aged 40–74 years who is not already on a disease register. Patients who attended for this were screened to determine if they met the