liver and spleen stiffness in 3 patient groups. Group 1: HIV and NCPH, defined as the presence of portal hypertension manifestations in the absence of cirrhosis; Group 2: HIV and past ddI exposure (without known NCPH), Group 3: HIV and no history of liver disease. Groups were matched for age, HIV chronicity and antiretroviral treatment (including cumulative ddI exposure in Groups 1 and 2). Clinical and demographic information was collected. Differences in liver and spleen stiffness (in kPa) between groups were analysed using the Mann-Whiney U test

Results 25 patients were recruited (Group 1: n=11, Group 2: n=5, Group 3: n=9). Patients were well matched for age, HIV chronicity and all had HIV RNA levels<20 copies/mL. Cumulative ddI exposure in Groups 1 and 2 was 56 and 53 months respectively (p=0.91). Median (IQR) ARFI liver and spleen stiffness in Group 1, 2 and 3 was 5.5 (4.8–9.8), 4.3 (4.0–5.3) and 4.8 (3.8–5.2) kPa (p=0.031) and 46.3 (29.5–143.2), 21.3 (14.6–26.8) and 18.3 (14.6–21.6) kPa (p=0.001) respectively. Liver and spleen stiffness were both significantly higher in NCPH vs ddI-exposed (p=0.019 and p=0.005) and ddI-unexposed controls (p=0.038 and p<0.001). Spleen stiffness was more effective than liver stiffness at predicting NCPH, AUROC 0.812 vs 0.948. Combining the two variables improved the diagnostic performance, AUROC 0.961. The optimal cut-off for predicting NCPH using splenic stiffness was 25.4 kPa, with sensitivity 91%, specificity 93%, PPV 91%, NPV 93%, positive likelihood ratio 12.73, negative likelihood ratio 0.10. Spleen and liver stiffness scores were strongly correlated (p=0.0004 95% CI 18, 59).

Conclusions Elevated spleen stiffness is observed in HIV patients with NCPH and can be quantified easily using ARFI with high diagnostic accuracy. Novel strategies such as ARFI for longitudinal monitoring of patients with HIV and NCPH should be considered.

PWE-074 HOSPITALITY DISCHARGE FOR ALCOHOL RELATED PROBLEMS IN NORTH OF ITALY: A SIXTEEN – YEARS PERIOD

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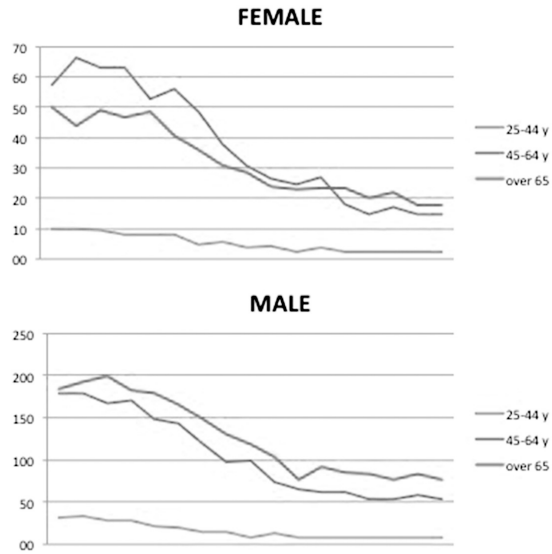
Background and aims WHO (2014) estimates a remarkable decline in per capita pure alcohol consumption in Italy, dropped from 18.1 to 7.1 lt in the period 1970–2013. Despite this, Italian Report on Alcohol 2016 showed an increase in drinking outside meals and a rise in consumption and binge drinking among young people (18–24, 14–17), particularly in males. The impact of these drinking styles on hospitalisation is still under-researched. This study aims to evaluate the trends of hospitality discharge for alcohol-related liver disease in the period 2000–2016 in Veneto Region in North Eastern Italy (4.8 million inhabitants).

Method Retrospective cohort analysis based on Veneto Region anonymous computerised database of hospital discharges between 2000 and 2016. All Veneto residents discharge records with principal diagnosis of alcohol-related liver disease (cod. ICD9-CM: 571.0, 571.1, 571.2, 571.3) were included in the study. The principal diagnosis was chosen as it is considered the primary reason for hospital admission. Standardised Hospitalisation Ratio (SHR) per five-year age group (ref. pop. Veneto 2008) was calculated and expressed per 100.000 population.

Results Over the period 2000–2016, 28.968 hospital admissions for alcohol-related diseases were recorded. Most part of subjects were males (74%) with a SHR more than double compared to females (53.3 vs. 18; OR:2.96; CI 95%:2.89–3.04 p<0,05). The longitudinal analysis of the hospitalisation trend shows a 7% increase on average age in both sexes (from 58.8±9,2 to 62.6±9,6) and a substantial decrease of 66% in SHR (X2 trend: 3933,326). In the last year of observation SHR tends to 19.5, and the greater risk for males is confirmed (30.2 vs. 8.8; OR:3.51; CI 95%:3.05–4.10; p<0.05). Considering the age groups, the highest decline in SHR can be found in the ranges 45–64 (from 69.2 to 34.1) and >65 (from 69.3 to 26.8). Interestingly, SHR shows a slightly rising trend in the group 25–44 betweeen 2013 and 2016 (p<0.05).

Conclusion In Veneto Region, the reduction in alcohol intake over the last 30 years has lead to a marked decrease in hospitalisation for alcohol-related diseases. However, the changes in drinking styles occurred in the age range 25–44 may explain the upward SHR trend between 2013 and 2016. Thus, in the next few years it is likely to expect an increase in hospitalisation in this age group. Public Health strategies are needed to address the new styles of alcohol consumption, especially in young people.



Abstract PWE-074 Figure 1

PWE-075 MANAGING NAFLD VIA A MULTIDISCIPLINARY CLINIC APPROACH IMPROVES LIVER HEALTH AND IS COST EFFECTIVE

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Introduction Non-Alcoholic Fatty Liver Disease (NAFLD) is the hepatic manifestation of metabolic syndrome and is tightly associated with type 2 diabetes (T2DM). Management centres around weight loss and therapies for diabetes and

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 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