

misuse, and medical history. Liver health was assessed through Fibro Scan technology and hepatitis C (HCV) antibody testing was offered to all. Food vouchers were used as an incentive for participation and volunteers from the Hepatitis C Trust supported the hospital team.

**Results** A total of 124 patients were assessed over 7 days, of whom 90 were male (73%). 65% 'White British' (n=80), 16% 'White Other' (n=20) and 7.2% were from BAME groups (n=9). 37% (n=46) had at least 1 underlying condition of which mental health was the most frequent (n=25) followed by chronic lung disease (n=9). Drug and alcohol assessment demonstrated that 66% (n=82) were current recreational drug users, of whom 10 were currently injecting drugs, and 17 had injected in the last 5 years. Over half (n=69) indicated a history of alcohol excess, of whom 15 consumed >90 units/week. The average Fibro Scan liver stiffness was 6.6 kPa (range 2.9 kPa to 72.8 kPa) with an average CAP of 240. 13 patients required further management within local hepatology services, with 8 patients testing positive for HCV antibodies, 3 with advanced fibrosis and 2 with cirrhosis secondary to ALD and NAFLD respectively.

**Conclusion** The housing of homeless people in Surrey during the COVID-19 pandemic allowed for evaluation of the liver health and health promotion including harm reduction advice in this marginalised community. Patient questionnaires demonstrated high levels of drug and alcohol misuse. Our pop-up clinics identified an unmet liver healthcare need in 10% (13/124). Targeted outreach to this hard-to-reach population enabled initial engagement. Future plans include weekly clinics in day centres and periodic education events.

P37

#### CONVERGENT SOMATIC MUTATIONS IN EFFECTORS OF INSULIN SIGNALLING IN CHRONIC LIVER DISEASE

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Chronic liver disease is associated with metabolic dysregulation, liver failure and hepatocellular carcinoma. We analysed somatic mutations from 1202 genomes across 32 liver samples, including normal controls, alcohol-related and non-alcoholic fatty liver disease. Five of 27 patients with liver disease carried hotspot driver mutations in FOXO1, the major transcription factor downstream of insulin signalling. FOXO1 mutations were independently acquired by up to 5 distinct clones within the same patient's sample, and impaired insulin-mediated nuclear export of FOXO1. GPAM, which produces storage triacylglycerol from dietary calories, also had significant excess of mutations, similarly exhibiting convergent evolution within biopsies. Telomeres were shorter in diseased than normal liver, with attrition more pronounced in larger clones. Multiple independent acquisitions of drivers within one small liver sample imply that such mutations could affect hundreds of grams of tissue across the whole organ, potentially contributing to systemic metabolic dysfunction.

P38

#### LEEDS TEACHING HOSPITALS NHS TRUST EXPERIENCE OF OBETICHOLIC ACID THERAPY OVER A 15 MONTH TIME PERIOD

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**Introduction** Obeticholic Acid (OCA) is a treatment option for primary biliary cholangitis which became available to the NHS in 2017 following NICE approval. The main clinical trial for OCA (called POISE) was based on patients receiving therapy for 12 months. Due to the significant cost difference between OCA and first-line therapy (ursodeoxycholic acid), it is important to ensure that patients on OCA are benefiting from therapy and that this benefit continues long-term. This audit aimed to quantify the outcomes and benefit of OCA in a group of patients receiving this therapy beyond 12 months.

**Methods** Patients who started OCA between 1st April 2018 and 31st July 2019 were identified using a local patient database containing details of those who had received OCA at Leeds Teaching Hospitals (LTH). Patients' electronic records were accessed in retrospect. Data collected included: number of patients that started OCA, number of patients that stopped OCA and the reasons for this, alkaline phosphatase (ALP) and bilirubin levels (checked at baseline and approximately every 3 months). ALP and bilirubin levels were compared to baseline levels (calculated as a percentage difference). These were then compared to the primary end point used in the POISE trial i. e. 15% reduction in ALP from baseline and reduction of bilirubin to at or below the upper limit of normal.

**Results** 20 patients started OCA in this time period. 14 of these patients had been on OCA for 12 months, 11 patients then remained on OCA at 15 months. 64% and 82% of patients met the primary end point criteria at 12 months and 15 months respectively.

**Discussion** Comparing these results to the POISE trial data shows that there is a similar long-term benefit to OCA in 'real-life' patients. The percentage of patients at LTH meeting the primary end point criteria at 12 months (64%) is higher than that of the POISE trial (46% for patients on 5–10 mg OCA and 47% for patients on 10 mg OCA). This could be due to the careful selection process of patients most likely to tolerate and benefit from OCA at LTH, as well as ensuring pruritus is managed before commencing OCA. The results of patients receiving treatment for 15 months show that the benefit continues beyond 12 months. Limitations to this audit include the small number of patients included, different patient characteristics compared to the POISE trial patient group and variable dosing regimens used in LTH patients.

P39

#### REAL WORLD EXPERIENCE OF USING BEZAFIBRATE FOR PBC

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Primary Biliary Cholangitis (PBC) is a rare autoimmune condition with an incidence of 20–40 cases per 100,000. Levels of alkaline phosphatase (ALP) can be used as a surrogate marker of clinical response to pharmacotherapy.

Abstract P39 Table 1

	UDCA+BZF	UDCA+OCA+BZF	BZF
Median age starting BZF	53.5 (39-72)	60 (53-68)	66.5(56-74)
Median liver stiffness (Fibrosis score kPa)	8.25 (3.3-46.2)	10.5 (5.1-13.5)	12.8 (8.2-27.3)
Total number of patients started on therapy	14	5	4
Co-existing liver disease	2 (14)	0 (0)	1 (25)
Tried OCA for at least 12 months prior (%)	8 (57)	5 (100)	0 (0)
Total number of patients with >15% reduction in ALP (%)	10 (71)	5 (100)	3 (75)
Total number of patients with ALP>1xULN to ALP<1.67xULN (%)	5 (36)	4 (80)	2 (50)
Total number of patients who normalised ALP (%)	2 (14)	1 (20)	1 (25)
Median% reduction in ALP between months 1-3 of starting BZF	45.6(7.5-72.9)	52.9 (25.2-63.1)	27.2 (11.1-73.9)
Total number of patients stopped therapy due to intolerance/side effects (%)	2 (14)	0	1 (25)

Ursodeoxycholic acid (UDCA) is first line therapy and Obeticholic acid (OCA) is second line therapy for those intolerant or unresponsive to UDCA. Bezafibrate (BZF) is an unlicensed therapy available for those intolerant or unresponsive to UDCA or OCA. The aim of this analysis is to investigate effectiveness and safety of BZF in a real world, specialist centre setting.

All patients dispensed BZF from July 2019 to June 2020 from Royal Free London Hospital were included. Using dispensing and clinical records, demographic, pharmacological and clinical data were collated.

24 patients were treated with BZF. 1 patient was excluded due to being treated with plasma exchange making her laboratory data uninterpretable. All patients were female with a median age of 56 years and as a group, had elevated median liver stiffness of 10.2kPa. The table 1 below shows the relevant outcomes. Biochemical response is presented in groups treated with BZF and UDCA, combination of BZF, OCA and UDCA or BZF alone.

Our data demonstrate that over a median of 2 months follow-up, BZF is well tolerated with only 3/23(13%) stopping therapy. BZF was effective especially used as triple therapy, as shown by at least 15% reduction in ALP in 18/23(78%) and ALP<1.67xULN in 15/23(65%) even at this very early time point. No patients died or experienced complications of hepatic decompensation.

P40

#### VIDEO CLINICS VERSUS STANDARD FACE-TO-FACE APPOINTMENTS FOR LIVER TRANSPLANT PATIENTS IN ROUTINE HOSPITAL CARE: A FEASIBILITY RANDOMISED CONTROLLED TRIAL OF MYVIDEOCLINIC

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**Introduction** There has recently been a rapid increase in the number of health and social care organisations offering remote consultations in order to minimise the spread of disease following the outbreak of COVID-19, but their effectiveness is unclear. The majority of studies focusing on remote consultations to date have evaluated telephone appointments. Although some studies have used video conferencing technology in the secondary care sector, the sample sizes have been small and they differ in their findings. This study evaluated the

feasibility of implementing video clinics at a large hospital trust in the UK and assessed whether the intervention improved patient satisfaction compared to standard face-to-face appointments for liver transplant patients.

**Methods** Clinically stable liver transplant patients were randomised to video clinic appointments (intervention) or standard face-to-face appointments (usual care). The intervention group had routine follow-up appointments via secure video link. Participants were asked to complete post-appointment questionnaires over 12 months. The primary outcome was the difference in scores between baseline and study end by patient group for three domains of patient satisfaction using the Visit-Specific Satisfaction Instrument (VSQ-9). An embedded qualitative process evaluation used interviews to assess patient and staff experiences.

**Results** Fifty four patients were randomised: 29 to receive video clinics and 25 to usual care (recruitment rate 26.6%). Crossover from intervention to usual care was high (44.8%). 129 appointments were completed with 64% of questionnaires returned. Patient satisfaction (intention-to-treat analysis) increased in both intervention and usual care groups but the between-group difference was not significant after controlling for baseline scores. Video appointments were perceived to save patients time and money, and patients found video clinics to be less burdensome, with fewer negative impacts on their health. Technical problems with the software were common, however, the software is constantly evolving and as time goes on these types of problems should ease. Both clinicians and patients saw video clinic appointments as positive and beneficial.

**Discussion** The UK National Health Service is facing huge challenges with regards to staffing, budgets and space due to increasing patient numbers. Being innovative by using available technology to offer routine follow-up appointments via secure video link may help ease some of the burdens and free up clinic space for those patients who need to be seen face-to-face. This study outlines our experiences of using a remote video consultation system and the associated advantages and pitfalls.

P41

#### IDENTIFYING ANTI-MITOCHONDRIAL ANTIBODY (AMA) POSITIVE PREVALENCE: AN UNDIAGNOSED DISEASE IN NORTH YORKSHIRE

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**Introduction** Primary Biliary Cholangitis (PBC) is a chronic, progressive disorder, with a relatively well-tolerated treatment