

length of stay and readmissions to hospital for primary alcohol patients. The team consists of 2 clinical nurse specialists and 6 in reach workers, covering 7 days a week 8am-8pm. Brief interventions are delivered by the in reach workers with the CNS providing specialist alcohol assessments and prescribing advice, all team members refer to the 2 community providers we work closest with. The CNS also took on the responsibility of screening those with alcohol related liver disease indicators via blood test and/or Fibroscan, as per CQUIN CCGX: Alcohol harm reduction: Early identification of liver disease.

Between Jan 1st to the end of March 391 patient referrals were accepted to the ACT within Hull Royal Infirmary and Brief Intervention advice around alcohol consumption was given to patients scoring 7–19 on the Alcohol Use Disorder Identification Tool. 111 were fully assessed by the Alcohol CNS as requiring specialist interventions including substitute prescribing whilst inpatient, alcohol detoxification, nutritional support, relapse prevention prescribing and or on-going aftercare. 99 were referred into community alcohol care providers, 50 were followed up in telephone clinics by the CNS post discharge and thus far 12% patients treated in that time frame remain abstinent at 30 days following detoxification. 58% patients have been screened for liver damage, with another 21 awaiting clinics to be restarted following Covid 19 closures, 63% of those screened have so far been identified as having liver disease that requires further staging with the Hepatology services.

Whilst the service hasn't been running long enough at this point to be able to say readmissions have been positively impacted, the team have worked with a number of frequent attenders to help them secure accommodation, enter community treatment and access mental health support. A small but growing number of successful abstinent patients that prior to engagement with us had attended hospital 2 or more times in a 6 month period, since then they have not required to attend other than for routine outpatient appointments. The COVID-19 pandemic has dramatically reduced both hospital and community service availability but the ACT continue to see patients that need admission and support those outside the hospital as much as possible via telephone. But with 5 months left on the original contract the ACT team have much to still achieve.

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AS ONE DOOR CLOSES, ANOTHER OPENS. COVID-19: A UNIQUE OPPORTUNITY TO SCREEN FOR HEPATITIS C IN DIFFICULT-TO REACH HOMELESS POPULATIONS

^{1,2}Elizabeth Harrod*, ¹Osob Mohamed, ¹Margaret Parsons, ¹Nicola Ho-Yen, ¹Yvonne Dawes, ¹Romanie Westwood, ¹Michelle Gallagher. ¹Royal Surrey County Hospital, Guildford, UK; ²University of Surrey, Guildford, UK

10.1136/gutjnl-2020-BASL.45

Introduction The burden of Hepatitis C (HCV) is significant in hard-to-reach populations in whom intravenous drug use (IVDU) is high, including those experiencing homelessness. Despite experiencing the highest risk for HCV, personal and systemic factors make homeless people underserved by standard healthcare provision and engagement is difficult. The COVID-19 pandemic provided a unique opportunity to engage with at-risk populations offered temporary government-funded housing.

Method The Surrey ODN team working in partnership with the Hepatitis C Trust secured permission from the County Council CCG and Hospital Trust to undertake one-day testing clinics in temporary housing venues, hotel car parks and day centres across Guildford and Woking. Social distancing was observed and PPE available for close patient contact. Clients completed a questionnaire detailing HCV risks, after which an oral swab point-of-care test was performed for HCV antibodies (Oraquick®). Patients were offered a Fibro Scan whilst awaiting results and those with a positive swab result had further tests to detect HCV viral load. A food voucher was used as an incentive for testing.

Results A total of 124 patients were tested over 7 days across all sites. Of these, 90 (73%) were male, average age 39.7 years. The population was predominantly White British (84%), with a minority of other backgrounds; Polish 10 (8%), other European 4 (3%), and BAME 9 (7.2%). 82 (66%) disclosed a history of recreational drug use with 10 (8%) currently injecting drugs and 17 (14%) injecting in the last 5 years. Health questionnaires identified 1 HCV risk factor in 45 (36%), 2 in 35 (28%), and 3 or more in 16 (13%). Of the 124 patients tested, 8 (6.5%) were positive for HCV antibodies. We identified and treated 1 active HCV infection, and spontaneous viral clearance in 3 current PWIDs. We were able to re-engage and confirm sustained virological response (SVR) in 4 patients who had been lost to follow-up prior to end of treatment and SVR.

Conclusion The burden of HCV infection falls disproportionately on those experiencing homelessness and substance misuse. We were able to use the COVID-19 pandemic to reach at-risk populations to screen for HCV, facilitate micro-elimination and reinforce harm reduction advice. Our homeless population have multiple risk factors for HCV, with HCV antibodies detected in 6.5% as compared to an estimated prevalence of 0.14% across Surrey (gov.uk ODN-profile tool). New injection networks may emerge given lockdown housing locations and retesting after lockdown will be crucial.

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LIVER HEALTH IN SURREY HOMELESS POPULATIONS. OUTCOMES OF POP-UP ASSESSMENT CLINICS DELIVERED DURING COVID-19

¹Osob Mohamed*, ^{1,2}Elizabeth Harrod, ¹Romanie Westwood, ¹Margaret Parsons, ¹Michelle Gallagher. ¹Royal Surrey County Hospital, Guildford, UK; ²University of Surrey, Guildford, UK

10.1136/gutjnl-2020-BASL.46

Introduction Homeless populations suffer an increased burden of morbidity as compared to the general population, with significant barriers to healthcare access. The Office for National Statistics (ONS) reports premature mortality in this population at a mean age of 45, thirty years earlier than the general population, including a significant burden of drug-related deaths (40%) and alcohol-related deaths (12%) (ONS data 2018). During the initial COVID-19 pandemic with temporary accommodation provided by local councils, there was a unique opportunity to engage this population to assess liver health in Surrey.

Method Pop-up clinics were set up in venues hosting homeless populations in Guildford and Woking between May and June 2020 inclusive. Patients completed a self-assessment questionnaire detailing liver risk factors, including drug and alcohol

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.

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

¹Stanley Ng, ¹Simon Brunner, ¹Natalia Brzozowska, ²Sarah Aitken, ¹Federico Abascal, ¹Luiza Moore, ¹Daniel Leongamornlert, ¹Aleksandra Iovic, ¹Philip Robinson, ¹Timothy Butler, ^{2,3}Mathijs Sanders, ¹Nicholas Williams, ¹Tim Coorens, ¹Jon Teague, ¹Keiran Raine, ¹Adam Butler, ¹Yvette Hooks, ¹Beverley Wilson, ¹Natalie Birtchnell, ²Huw Naylor, ²Susan Davies, ¹Michael Stratton, ¹Inigo Martincorena, ²Matthew Hoare*, ¹Peter Campbell. ¹Wellcome Trust Sanger Institute, Cambridge, UK; ²University Of Cambridge, Cambridge, UK; ³Erasmus University Medical Centre, Rotterdam, The Netherlands

10.1136/gutjnl-2020-BASL.47

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.

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

Louise Hogg*, Vinod Hegade, Chenchu Chimakurthi, Rebecca Jones, Udvitha Nandasoma, Ceri Watson. Leeds Teaching Hospitals NHS Trust, Leeds, UK

10.1136/gutjnl-2020-BASL.48

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.

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REAL WORLD EXPERIENCE OF USING BEZAFIBRATE FOR PBC

Fatema Jessa*, Neil Halliday, Tina Shah, Douglas Thorburn. Royal Free Hospital London NHS Foundation Trust, London, UK

10.1136/gutjnl-2020-BASL.49

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.