LUSUTROMBOPAG REDUCES THE NEED FOR PLATELET TRANSFUSION AND LOWERS THE RISK OF BLEEDING IN PATIENTS WITH CHRONIC LIVER DISEASE PRIOR TO INVASIVE PROCEDURES: A META-ANALYSIS

Introduction The Baveno VI consensus provides guidance on using non-invasive methods to identify patients with compensated advanced chronic liver disease (cACLD) who are unlikely to have clinically significant portal hypertension (CSPH). Patients with a platelet count of >150,000/Litre and a liver stiffness of <20kPa, assessed using transient elastography (TE), have a sufficiently low risk of variceal bleeding that they do not require variceal screening endoscopy to examine for oesophageal varices (OV) costing approximately £342 per procedure. This identifies potential substantial cost savings to healthcare systems and reduces risk to patients from unnecessary investigations. However, concordance with these guidelines, availability of TE and number of avoidable endoscopies is unknown.

Method Retrospective data collection from 10 sites across London, 6 teaching hospitals and 4 district general hospitals (DGH), over a 6 month period from 1st January to 30th June 2019 by reviewing oesophagastroduodenoscopy (OGD) requests and analysing those with indications of ‘variceal screening’, ‘cirrhosis’, ‘liver disease’ or ‘variceal surveillance’. Patient platelet count and TE result within a year of OGD was recorded.

Results Data was collected for 353 endoscopies, 7 were excluded due to incomplete data and 89 due to decompensation at the time of endoscopy, 141 screening procedures were included. Endoscopic findings included: 74.3% no OV, 16.3% grade I OV and 9.2% grade II OV or high risk stigmata. 49.7% did not have a recent TE (48.5% in teaching hospitals vs 52.4% in DGH). Of those who did have a recent TE result, 54 (76.1%) met the Baveno criteria for absence of CSPH, of whom 3 (9.3%) were found to have clinically significant varices. Median follow-up was 350.5 days and 0 of these patients subsequently bled. The performance of the Baveno criteria in this study was: sensitivity 64.3%, specificity 85.9%, positive predictive value 52.9% and negative predictive value 90.7%. Avoiding OGD in patients meeting Baveno criteria in this cohort would have potentially saved over £18000.

Discussion Our study shows that TE is not widely used for risk stratifying patients with cACLD across London prior to screening OGD. These simple non-invasive markers can achieve substantial cost savings, avoid exposing patients to unnecessary investigations and relieve pressure on endoscopy departments under increased strain due to the Coronavirus pandemic. Whilst a small proportion of OV will be missed, the bleeding risk in these is low with adequate follow-up. Availability and utilisation of TE for risk stratification in cACLD should be improved.
Abstract P18 Figure 1  Proportion and number of patients starting treatment in the community

Key to implementation was regular reiteration, evaluation and feedback across the network, utilising Plan, Do, Study, Act (PDSA) cycles to evolve solutions to the needs of each provider and their clients.

We forged a common purpose, combined with a supportive culture to overcome challenges as they emerged. We focused on the positive impacts of our work and the values the nursing team have established to connect and build strong relationships with the staff of our partner organisations.

We focused on a number of areas including training, development, patient and staff needs; working collaboratively to find solutions and establishing working groups where needed. A data dashboard, ‘one version of the truth,’ was shared across all organisations, to inspire discussion about further improvements.

Results Community locations increased from six in 2017–2018 to 17 in 2019–2020 resulting in a five fold increase in the number of patients treated in the community (n=34 vs. n=154) (figure 1). Currently 50% of our HCV treatment is community-based compared to 12% prior to our initiative.

Conclusion Working collaboratively with stakeholders can substantially scale up community-based HCV treatment by delivering an integrated and personalised service. Wider adoption of such models through a collaborative and reiterative approach could help achieve HCV elimination.

P19 PATIENT ASSESSMENT AND CHARACTERISTICS IN A SINGLE-CENTRE FONTAN-ASSOCIATED LIVER DISEASE COHORT

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Background The Fontan operation is performed in individuals born with a single functional ventricle. The procedure separates venous return from the heart and allows normal arterial oxygen saturations. It extends the life span of these patients, who are now surviving into adulthood. However, the Fontan circulation results in chronic hepatic congestion and reduced portal blood flow. Fontan-associated liver disease (FALD) is an increasingly recognized complication, and can lead to cirrhosis, portal hypertension (PHT) and hepatocellular carcinoma. Screening for liver disease is a critical part of long-term follow-up, although assessment of fibrosis in this cohort is not clear-cut. Here we describe a model for outpatient hepatology review, and report baseline parameters of liver disease in new referrals.

Methods All patients referred to hepatology at the Royal Infirmary of Edinburgh from Dec 2017 to Aug 2019 were included. Demographic data, blood tests and echocardiogram results were recorded in a database at the time of clinic review.

Results 21 patients were included. Mean age was 29 years old, 62% were male. Average age at the time of Fontan completion was 9 years. Median Fontan duration was 20 years (range 8–34). 5/21 patients had evidence of moderate LV impairment. The most common liver enzyme abnormality was isolated raised GGT (87.1U/l, range 30–326). 20/21 had abdominal ultrasound, 9 had normal liver appearance. Transient elastography (Fibroscan) results were available in 18 patients. Median liver stiffness was 15.4 kPa (range 7.9–34.3). 11/21 patients had clinical features suggestive of possible PHT (varices/ascites/splenomegaly/thrombocytopenia). None of the patients had features of decompensated cirrhosis. Serum bilirubin was higher in patients with features of PHT (29.2µmol/l vs.16.9µmol/l p<0.0167). There was no significant correlation between the presence of features of portal hypertension and liver stiffness or Fontan duration. Serum hyaluronic acid was only mildly elevated in a single patient (mean 35.2, range 20–73) and was not affected by the presence of features of PHT or LV impairment.

Conclusions Individuals with Fontan physiology are surviving longer with the current literature suggesting almost universal development of FALD. Evaluation of FALD is challenging with traditional markers of liver fibrosis being unreliable. We recommend assessment for FALD 10-years post-Fontan including clinical assessment, abdominal ultrasound, laboratory investigations, calculation of fibrosis scores and elastography. Following these individuals over time, and development of a UK registry, would help to improve our understanding of how best to assess fibrosis and predict severity of FALD in unbiased cohorts.

P20 OBETICHOLIC ACID IMPROVES EXPERIMENTAL NON-INVASIVE MARKERS OF NON-ALCOHOLIC STEATOHEPATITIS AND ADVANCED FIBROSIS: RESULTS OF A SECONDARY ANALYSIS FROM THE MONTH-18 INTERIM ANALYSIS OF THE REGENERATE STUDY

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In the REGENERATE 18-month interim analysis, obeticholic acid (OCA) improved surrogate endpoints of liver fibrosis in patients with non-alcoholic steatohepatitis (NASH). New biomarker indices are being developed, including FibroMeter (FM), which is designed to predict fibrosis stage ≥2 using age, gender, alpha-2-macroglobulin, international normalized ratio, platelets, urea, and gamma-glutamyltransferase. FM Vibration-Controlled Transient Elastography (VCTE) uses the same biomarkers (excluding urea) with liver stiffness (LS). The FibroScan AST (FAST™) score uses LS by VCTE, Controlled Attenuation Parameter score, and aspartate aminotransferase to identify patients with NASH and NAFLD Activity Score (NAS) ≥4 and fibrosis stage ≥2.