P14 POST-PARTUM ALT FLARES ARE MORE PREVALENT IN CHRONIC HEPATITIS B MOTHERS WITH HIGH HBCRAG AND PG HBV RNA AT 3RD TRIMESTER IRRESPECTIVE OF ANTIVIRAL THERAPY

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10.1136/gutjnl-2020-BASL.25

Post-partum ALT increases are observed in 30% of HBsAg+ mothers and are also noticed in mothers administered nucleoside analogues (NA) to prevent mother-to-child transmission (MTCT). As such flares may be injurious we have studied the utility of novel and sensitive markers of cccDNA transcriptional activity [hepatitis B core-related antigen (HBcrAg) and pre-genomic (pg)RNA] to predict post-partum ALT flares in both NA treated and untreated HBsAg+ mothers.

We aimed to evaluate the role of serum levels of HBcrAg and pgRNA in pregnancy to predict post-delivery ALT flares, their severity and by inference, a preference to continue on NA.

Methods Plasma samples from 642 HBsAg-positive pregnant women were collected during 3rd trimester and at 6, 12, 24, 36 and 48 weeks post-partum. 103(16%) were HBeAg +; median age 31 years. Samples were tested for HBeAg, HBV DNA (Roche; IU/ml); quantitative HBsAg (Abbott Architect; log_{10}IU/ml), HBcrAg levels (CLEIA Fujirebio; log_{10}U/ml) and pgRNA concentrations (PCR assay Abbott Diagnostic; log_{10}U/ml). 95/642(15%) mothers with HBV DNA concentrations >200,000 IU/ml started tenofovir prophylaxis from 28 weeks of gestation to prevent HBV MTCT. The ALT flares incidence and severe flares (defined as >10xULN) was correlated with HBcrAg and pgRNA in treated and untreated mothers.

Results Untreated cohort: 106/547(19%) of untreated mothers developed a post-delivery flare, but none was severe. Higher pre-delivery HBV DNA, HBcrAg and pgRNA concentrations were observed in untreated mothers with post-partum ALT flares vs. mothers without a flare. Pregnancy ALT and HBsAg concentrations were similar in flare vs. no flare patients.

NA treated cohort: Higher pre-delivery HBcrAg and pgRNA concentrations were observed in NA treated mothers with a post-partum flare. 80/95(84%) treated mothers stopped NA therapy post-partum (median 4 weeks). However no difference in flares incidence was observed in mothers discontinuing treatment vs. mothers who continued NA.

[56/80(70%) vs 13/15(87%)]. Seven HBeAg-negative treated patients who stopped NA developed a severe ALT flare within 12 weeks post-delivery. High pre-delivery levels of HBcrAg (>7 log_{10}U/ml) and pgRNA (>4 log_{10}U/ml) were exclusive in mothers with severe flare, but no flares were associated with hepatic synthetic dysfunction and resolved after re-starting NA. 13/103(13%) mothers lost HBeAg and 6 (1%) lost HBsAg spontaneously within 1 year post-delivery (all mild flares).

Conclusion Post-partum ALT flares are more common in pregnant women with higher pregnancy HBcrAg and pgRNA levels, in both NA treated and untreated mothers. High pre-delivery levels could suggest that NA therapy should be continued post-partum to avoid severe and injurious ALT flares.

P15 DEVELOPMENT OF CLINICAL PROFESSIONAL STANDARDS FOR LIVER TRANSPLANT NURSING

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10.1136/gutjnl-2020-BASL.26

Background and Aims Nurses are the largest group of health care professionals, as such they are integral in making an impact on liver disease and providing quality care. Following the publication of the Royal College of Nursing (RCN) Caring for people with liver disease: a competence framework for nursing (2015), it was recognised that the area of liver transplant nursing was under represented. There were no professional clinical standards in liver transplant nursing to demonstrate competence, or educational resources needed to develop this practice. New clinical professional standards were developed to promote consistency and care delivery for all patients in both specialist transplant and referral hospitals in the United Kingdom (UK). The competence framework aims to benefit practitioners, employers, patients and the public by providing quality, safety and effectiveness of liver and liver transplant practice.

Method Liver recipient transplant co-ordinators, transplant nurses and specialist liver nurses of referral hospitals and in the seven liver transplant centres in the UK were involved in this development. The clinical professional standards cover the continuum of referral, assessment, listing for transplant and options for those not suitable for transplant. They describe high quality care pre-, peri- and post-liver transplant, as well as staying healthy in the long term. They were reviewed by previously identified stakeholders and final review completed with the original members of the review group.

Results In September 2019 a revised framework RCN Caring for people with liver disease including liver transplantation: a competence framework was published. This is a refreshed and updated document that reflects contemporary liver nursing practice as well as the new section on liver transplant nursing. The competence framework will be audited in two years' time to review the quality of care delivery, consistency of nursing care across the seven liver transplant centres and their referral hospitals; and the impact on patient experience.

Conclusion By developing clinical professional standards in liver and liver transplant nursing, care delivery can be benchmarked to ensure that nurses are delivering, and patients are receiving high quality, evidence based, effective care. In the future a survey will be used to evaluate the benefits to practitioners, employers and patients.

P16 TRANSIENT ELASTOGRAPHY IS UNDERUTILISED IN LONDON HOSPITALS AND RESULTS IN UNNECESSARY ENDOSCOPIC SCREENING FOR OESOPHAGEAL VARICES: A MULTI-SITE AUDIT OF PRACTICE

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10.1136/gutjnl-2020-BASL.27

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 oesophagogastroduodenoscopy (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: 74.5% 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 5 (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.

P17 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

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10.1136/gutjnl-2020-BASL.28

Background and Aims Thrombocytopenia complicates management of chronic liver disease (CLD), and may interfere with the performance of invasive procedures. Lusutrombopag (LUSU), an oral, small molecule thrombopoietin receptor agonist, has been studied for the treatment of thrombocytopenia in patients with CLD who are scheduled for invasive procedures.

Aiming to further assess its efficacy and safety, a meta-analysis of LUSU randomised controlled trial (RCT) data is presented.

Method A direct random-effects meta-analysis was conducted in Stata 14.2MP, using the method of DerSimonian and Laird, with data from three RCTs enrolling pre-procedure CLD patients with a platelet count (PC) < 50 × 10^9/L. Patients were randomised to receive LUSU 3 mg once daily or placebo (PBO) for up to seven days prior to their invasive procedure, with the procedure performed between day 9 and 14.

Results LUSU is statistically significantly better than PBO in reducing the need for platelet transfusions (PT) prior to and after an invasive procedure (No PT during study: Odds ratio 11.24 (95% CI: 2.83, 44.64); p = 0.001). During the procedure window, patients who received LUSU and no PT had a statistically significant higher increase in PC than patients who received PBO and a PT (mean difference between LUSU and no PT versus PBO with PT at day 12: 34.18 × 10^9/L (95% CI: 30.31, 38.06; p < 0.001)). LUSU significantly reduced the rate of any bleeding (irrespective of severity) during the study compared to PBO (OR 0.45 (95% CI: 0.22, 0.93; p = 0.03)). Overall, there was no significant difference between LUSU and PBO in the rate of treatment emergent adverse events (TEAEs), including splanchnic thrombosis.

Conclusion Lusutrombopag is well tolerated and can increase platelet count in thrombocytopenic CLD patients prior to an invasive procedure, reducing the need for platelet transfusions and lowering the risk of bleeding.

P18 SCALING UP HEPATITIS C COMMUNITY-BASED TREATMENT SERVICES TO ADDRESS HEALTHCARE INEQUALITIES IN SUSSEX

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10.1136/gutjnl-2020-BASL.29

Introduction Patient engagement with testing and treatment is a barrier to eliminating Hepatitis C Virus (HCV). Due to healthcare inequalities patients with HCV often struggle to engage with traditional acute specialist services, and are undiagnosed and untreated as a result.

Informed by the success and learning of the ITTREAT project (O'Sullivan *et al*, 2020), the challenge was to scale up community nurse-led services. This would also increase the range of staff engaging those at risk of HCV providing new opportunities for access. In 2017-2018 HCV treatment was only available in six community locations across Sussex resulting in 12% of patients starting treatment in the community. We planned to collaborate with a range of new community partner providers external to the NHS, to provide education and a one-stop test and treat service.

Aims Address patient healthcare inequalities by scaling up community nurse-led services to increase access to HCV treatment in Sussex.

Methods Our approach was to scale up services, through systems leadership in a collaborative network model. Drug and alcohol services and homeless hostels were targeted due to their strong existing relationships with people who inject drugs, a group identified as most at risk for HCV transmission in our region.