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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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<sub>10</sub>IU/ml), HBcrAg levels (CLEIA Fujirebio; log<sub>10</sub>U/ml) and pgRNA concentrations (PCR assay Abbott Diagnostic; log<sub>10</sub>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<sub>10</sub>U/ml) and pgRNA (>4 log<sub>10</sub>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 predelivery 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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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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