was sent to the GP to advise that engagement was unsuccessful.

**Results** Of the initial 1162 patients, 241 were assigned to adjacent ODNs, 19 were deceased. Local laboratory systems allowed us to censor 105 patients with negative RNA following initial positive antibody testing. We made contact with 562/797 (70%) of the remaining patients, of whom 100 (12.5%) patients attended for further investigation and were confirmed PCR negative, 149 (19%) reported successful therapy outside the ODN, 21 (3%) reported documented spontaneous clearance, 12 were antibody and PCR negative (1.5%) four of whom categorically denied ever receiving a prior test, and 18 (2%) declined re-engagement. 5.9% of the total cohort were diagnosed with active HCV requiring further treatment (8.4% of the 562 patients we successfully re-engaged). Sadly, one patient was diagnosed with advanced hepatocellular carcinoma as part of work up following re-engagement.

Discussion Initial anxiety about the potential burden of work from the Lookback exercise was unfounded, as many patients were already known to the team or had already received successful treatment. Each telephone contact enabled re-engagement and a discussion regarding new treatment options for those concerned about side effects from previous treatments. We have accounted for 70% of patients, there may be an opportunity to attempt re-engagement of the missing 225 patients at a future date. Some patients were concerned that they were contacted regarding previous investigations, though the majority were happy to have the opportunity to receive treatment if required. We were able to educate and re-engage 47 patients for treatment, with significant personal and population benefits.

## P56 MORTALITY IN PATIENTS WITH WILSON'S DISEASE IN ENGLAND: A NATIONAL REGISTER-BASED STUDY

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**Background** Wilson Disease (WD) is a rare genetic disorder of copper metabolism. Without appropriate treatment it can progress to liver failure and death. The National Congenital Anomaly and Rare Disease Registration Service (NCARDRS), with support from the Wilson Disease Special Interest Group, has established registration of WD in England. We aim to provide a descriptive study of mortality, including multiple cause of death and transplant status, of those with WD.

Method Confirmed cases of WD were reported by 20 hospital trusts and registered with NCARDRS enabled by their legal permissions (CAG 10-02(d)/2015) to collect patient data without consent. Vital status of all cases were determined and linkage with Office of National Statistics (ONS) mortality data was undertaken to obtain death certificate data. Cases of E83.0 Disorders of copper metabolism, between 2008–2018, were extracted from ONS mortality data. Cause of death free text was manually searched to identify deaths that mentioned WD. All deaths were linked to Hospital Episode Statistics (HES) inpatient data to determine transplant status.

**Results** Death records were identified for 52 patients, 65% were male, with a mean age of 45.5 years (range 17–82). Complications related to cirrhosis or liver failure were

assigned as the underlying cause of death (UCOD) in 44%. Hepatocellular carcinoma (HCC) was the UCOD in 5.8%. Of the 21% of patients who were recorded as having a liver transplant, transplant complications or graft failure were recorded as a cause of death in 8%. Sepsis was mentioned on the death certificate in 42% and recorded as the UCOD in 21%.

**Conclusion** The contribution of WD to mortality in England will be underestimated unless multiple cause of death analysis is undertaken. The number of deaths resulting from complications related to cirrhosis or liver failure suggests that there might be missed opportunity for liver grafting. HCC was the cause of death in 5.8% of cases suggesting the prevalence of HCC in WD may be higher than previously thought. This project demonstrates the utility of the NCARDRS' for WD in England.

## P57 PATIENTS WITH SEVERE ALCOHOLIC HEPATITIS (AAH) AND MULTI-ORGAN DYSFUNCTION ADMITTED TO THE INTENSIVE THERAPY UNIT (ITU) HAVE SIGNIFICANTLY WORSE OUTCOMES THAN PATIENTS WITH ACUTE ON CHRONIC LIVER DISEASE (ACLD)

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Introduction Current assumption in the published literature is that AAH is not dissimilar to other forms of ACLF; however, the clinical syndrome of AAH is unique, characterised by profound jaundice and immune dysfunction. Therefore, the outcomes of patients requiring organ support in this setting may differ from other forms of ACLD.

Aim To determine whether the clinical outcomes of AAH patients with multi-organ failure admitted to ITU differ from those with other forms of ACLD.

Method Single-centre retrospective study of consecutive patients admitted to ITU with AAH (AAH ITU) between 10/ 2014 and 07/2017. Two comparator cohorts were identified patients with AAH hospitalised but not requiring ITU (non-ITU AAH); and patients with non-AAH ACLD admitted to ITU (non-AAH ITU). The diagnosis of severe AAH was made prospectively adhering to the STOPAH trial criteria, and confirmed retrospectively by two independent Hepatologists; 37% of AAH patients had the diagnosis confirmed histologically.

**Results** 62 patients were diagnosed with severe AAH during the study period – at the time of hospital admission the median bilirubin was  $319\mu$ mol/l and 63% had a Glasgow Alcoholic Hepatitis Score  $\geq 9$ . 21/62 patients were admitted to ITU. AAH ITU patients were more likely to have CLIF-C ACLF (100% vs 80%, p=0.017), but had a similar SOFA score (p=0.064) and total number of organ supports (2 vs 2, p=0.447) to non-AAH ITU patients (n=70).

The 90-day survival was 29% for the AAH ITU patients, compared with 90% and 60% for non-ITU AAH and non-AAH ITU patients, respectively (p<0.001).

Overall, 15% of AAH ITU and 56% of non-AAH ITU patients who received any organ support survived to hospital discharge. Of the AAH ITU patients with a CLIF-C ACLF grade of 3, 1 patient (8%) survived to discharge, compared with 8/23 (35%) non-AAH ITU patients. Of the AAH ITU patients who required 3 organ support (n=8), none survived

to hospital discharge, compared with 6/18 (33%) non-AAH ITU patients.

Conclusion Patients with AAH admitted to ITU do comparatively worse than non AAH patients receiving a similar level of organ support; and prognostic variables such as the CLIF-C ACLF score may not be as discriminatory in this cohort. As such, ceilings of care should be considered carefully and on an individual case basis.

## P58 ECONOMIC EVALUATION OF THE GORE® VIATORR® STENT IN PATIENTS WITH COMPLICATIONS OF SEVERE CIRRHOSIS – ASCITES AND BLEEDING: A UK COST-UTILITY ANALYSIS

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Introduction Variceal bleeding and refractory ascites are common clinical manifestations of liver cirrhosis. Transjugular intrahepatic portosystemic stent-shunt (TIPSS) procedures can increase survival and improve quality of life in some cirrhotic patient populations. TIPSS is clinically effective: versus endoscopic band ligation (EBL) in second line treatment of variceal bleeding; and versus large volume paracentesis (LVP) in refractory ascites. However, there is a sparsity of UK based economic evidence determining the cost-effectiveness of TIPSS for these two indications. This study aimed to establish the costeffectiveness of (i) TIPSS versus EBL in second line treatment of variceal bleeding, and (ii) TIPSS versus LVP in the management of refractory ascites.

Methods A cost-utility analysis was conducted from a UK health perspective including NHS costs and quality adjusted life years (QALYs). A Markov model was constructed which included health states for survival either with or without complications of liver cirrhosis including variceal bleeding, ascites and hepatic encephalopathy. The model was conducted across a 2-year time horizon and applied costs and dis-utilities per complication for each monthly cycle. Uncertainty was analysed in one-way deterministic and probabilistic sensitivity analyses.

**Results** TIPSS with the GORE<sup>®</sup> VIATORR<sup>®</sup> stent was costeffective (dominant) and highly cost saving to the NHS for both populations. For the variceal bleeding indication, when compared with EBL, TIPSS resulted in 0.22 additional QALYs, saved the NHS £1,301 per patient and had a 68% probability of being cost-effective. For the refractory ascites indication, when compared with LVP, TIPSS resulted in 0.526 additional QALYs, saved the NHS £17,983 per patient and had a 100% probability of being cost-effective. **Conclusions** TIPSS using a GORE<sup>®</sup> VIATORR<sup>®</sup> stent to manage patients with severe cirrhosis and RA or bleeding is expected to be cost-saving and improve patient outcomes. While TIPSS remains cost-saving and cost-effective in our base-case analysis for the management of high quality and adequately powered RCTs which also evaluate quality of life and health economics are required to inform robust economic analysis; mainly for the bleeding indication. Increased implementation of TIPSS is likely to improve patient outcomes and be cost saving to the NHS, particularly for the management of ascites.

## P59 SYSTEMATIC REVIEW AND META-ANALYSIS OF EARLY TRANSJUGULAR INTRAHEPATIC PORTOSYSTEMIC STENT-SHUNT (TIPSS) IN THE MANAGEMENT OF ACUTE VARICEAL BLEEDING

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Introduction Transjugular intrahepatic portosystemic stent-shunt (TIPSS) insertion is well established as an effective treatment for the management of bleeding in patients with decompensated cirrhosis. Current evidence suggests that early TIPSS (within 72 hours of a variceal bleed) using the GORE<sup>®</sup> VIA-TORR<sup>®</sup> stent effectively reduces portal pressure and improves prognosis in comparison to endoscopic band ligation (EBL) and medical management. We conducted a meta-analysis of trials comparing early TIPSS with EBL in cirrhotic patients with acute variceal bleeding.

Methods Systematic literature searches were conducted in MEDLINE, PubMed, EMBASE and Cochrane. Eligible studies were published between May 1999 and May 2020. The outcomes of interest were survival, re-bleeding and rate of hepatic encephalopathy. Risk Ratio (RR) estimates with 95% confidence interval (CI) were calculated using a random effects model and trials were evaluated using the Cochrane tool for the assessment of the risk of bias.

**Results** 8,123 studies were identified by the search and three prospective controlled trials including 152 patients were included in the meta-analysis. Meta-analyses demonstrated that GORE<sup>®</sup> VIATORR<sup>®</sup> consistently and significantly reduced incidence of bleeding (RR = 0.20, 95% CI = 0.09–0.42, p = <0.001) (figure 1). This was associated an improvement in overall survival, which did not quite reach statistical significance, at 1 and 2 years (RR = 0.62, 95% CI = 0.33–1.19 and RR = 0.62, p = 0.16 95% CI = 0.31–1.26, p = 0.19).



Abstract P59 Figure 1 Bleeding at 1 year