cost-effective at a threshold of £20,000 willingness to pay (WTP) per quality adjusted life year (QALY) gained.

Results The prevalence required for ED testing to be cost-effective was 0.3% HCV RNA prevalence, and 0.2% HBsAg prevalence, under the base case parameters (figure). The prevalence thresholds were sensitive to the cost of the diagnostic tests and the linkage to care achieved (proportion of patients contacted with diagnosis, attend referral and receive treatment), and DAA treatment costs for HCV.

Conclusions Early evidence suggests that ED testing and ED based linkage to care for HCV and HBV is likely to be cost-effective in many geographical areas across the UK. Additional studies are required to evaluate ED testing across regions, and this can inform public health guidelines in the UK.

PTU-040 VIRAL+EMIC: OPT OUT HEPATITIS B AND C TESTING IN PATIENTS ATTENDING AN URBAN EMERGENCY DEPARTMENT

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Background and aims Previous studies of screening attendees to urban emergency departments (ED) have indicated high detection rates of hepatitis B (HBV) and hepatitis C (HCV). The current study evaluated the feasibility and detection rates in a large urban emergency department in the United Kingdom.

Method Over a 9 month period consecutive attendees to an urban ED, who had clinically indicated blood sampling, underwent opt out testing for HBV surface antigen (HBsAg) and HCV (Antibody [Ab]) using an electronic preselected blood order set. All HCV Ab reactive results were followed by reflex HCV antigen (Ag) testing (Abbott Architect). Attendees who were identified as either HBsAg, or HCV Ag were then linked to care by the study team. Seroprevalence estimates and risk factors (age, sex, ethnicity, homelessness, and HIV) associated with seropositivity were estimated using univariable and multivariable Poisson regression.

Results 81,088 patients attended the ED, of whom 38,704 patients (49% male, median age 45 yrs [31–62 yrs]) had blood sampling. 29,240 (75.5%) underwent testing for HBV and/or HCV. Of the 28,941 patients tested for HBsAg, 244 (0.8%, 95% confidence interval [CI] 0.7%–0.9%) were positive. Of the 28,939 patients tested for HCV, 539 (1.9%, 95% CI 1.7%–2.0%) were HCV Ab positive. Of these 462 patients had HCV Ag measured, of whom 264 (adjusted seroprevalence 1.1%) were HCV Ag positive.

A high HBsAg seroprevalence was observed among patients aged 50–59 years (1.6%), with Black or Asian ethnicity (1.9%, 95%CI 1.6–2.4%), and with HIV infection (4.3%, 95%CI 2.1–8.7%). In the adjusted model, risk factors for infection were being male (relative risk (RR): 1.6, 95%CI 1.2–2.1%), of non-White British ethnicity (RR>4), being homeless (RR: 1.9, 95% CI 1.0–3.5) or being HIV positive (RR: 4.1, 95%CI 1.9–8.9%).

A high HCV Ab seroprevalence was observed in patients aged 30–49 years (2.9%, 95% CI 2.6–3.3%), male (2.9%, 95% CI 2.6–3.2%), homeless (22.1%, 95%CI 19.2–25.3%)

and HIV infection (12.3%, 95%CI 8.0–18.4%). In the adjusted model risk factors for HCV Ab positivity were being male (RR:2, 95% CI 1.6–2.5), age 30–49 years (RR:4.4, 95% CI 3.1–6.4), homeless (RR:10.1, 95% CI 8.7–13.0), and being HIV positive (RR:3.6, 95% CI 2.2–5.8)

To date 35 HCV Ag patients have been contacted, 24 were eligible for linkage, and of these 20 attended clinic.

Conclusion In this large study of opt out Hepatitis B and C testing good uptake rates are achievable, with a high detection rate of hepatitis B and C. For hepatitis B the greatest risk factor was being of non-white ethnicity, and for hepatitis C being homeless. Linkage to care remains a challenge. Integrated care pathway embracing community services are currently being developed to improve linkage rates.

PTU-041 THROMBOELASTOGRAPHY DEMONSTRATES A HYPERCOAGULABLE PROFILE IN CIRRHOSIS AND CORRELATES WITH LIVER DISEASE SEVERITY

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Introduction Recent literature supports the paradigm of a rebalanced, although fragile, haemostasis equilibrium in compensated cirrhosis, poorly reflected by standard coagulation tests. We performed thromboelastography (TEG) to evaluate the global haemostatic profile of patients with stable decompensated cirrhosis, assessing for correlation with liver disease severity. We examined whether portal venous blood displayed an increased pro-thrombotic profile in comparison to peripheral and hepatic venous blood, potentially contributing to the high incidence of portal venous thrombosis in cirrhosis.

Methods 18 cirrhotic patients undergoing transjugular intrahepatic portosystemic shunt procedures for refractory ascites or previous variceal bleeding were prospectively studied. Exclusion criteria included recent anticoagulation, infection or variceal bleeding (within two weeks), haematological disorders, or splanchnic venous thrombosis. Reaction time (R), kinetic time (K), alpha-angle, and maximum amplitude (MA) were measured in citrated portal, hepatic and peripheral venous blood using TEG Haemostasis Analyser 5000. Correlations were assessed with platelet count, prothrombin time (PT), international normalised ratio (INR), activated partial thromboplastin time (APTT), fibrinogen concentration; and evaluated against liver disease severity scores. Statistical analysis was performed using SPSSv24.

Results Patients were predominantly male (61%), with Child Pugh B cirrhosis (89%), mean MELD score 11.6 ± 3.6 . A frequent hypercoagulable profile was demonstrated (shortened R-time in 89% of patients, shortened K-time in 69%, increased alpha-angle in 81%), despite a prolonged INR, PT, APTT in 56–61% of patients. R-time (reflecting soluble clotting factors concentration) did not significantly correlate with INR or PT. MA (associated with platelet number/function) was normal in 83% of patients, despite thrombocytopenia present in 56%. Portal venous blood displayed a comparable TEG profile to peripheral and hepatic venous blood. The MA parameter of TEG demonstrated the strongest correlation with UKELD ($r = -0.7$, $p = 0.001$) and MELD ($r = -0.6$, $p = 0.02$) scores.