Abstract PMO-151 Figure 1 HCV free survival in patients who achieve SVR.

currently treated. Antiviral therapy for injecting drug users with HCV in North East London is provided by a Blood Borne Virus nursing team based in community outreach clinics. We aimed to examine HCV and drug related outcomes in patients treated by this service.

Methods A retrospective notes analysis was performed of all patients treated between September 2006 and June 2011. Data were collected on demographics, HCV treatment, health and social outcomes. Minitab 16 and Prism 5 were used to perform statistical analysis. The Wilcoxon signed rank test, unpaired T test, and Mann-Whitney test were used to analyse drug and alcohol and demographic outcomes.

Results 152 patients were treated. 77 were active IDU's and 75 were ex-IDU's. 80% were male. 45% were genotype 1, 54% were genotype 2 or 3. 81% of patients were compliant with treatment. 105 patients (69%) achieved an end of treatment response (ETR) Sustained viral response (SVR) rate was 58%. Overall survival post SVR was 100% and HCV free survival was 98%. Two patients were re-infected at 14 and 51 months after treatment (See Abstract PMO-151 figure 1) five deaths occurred 21, 32, 35, 37 and 44 months after treatment finished. All deaths were in non-responders. No deaths were attributable to treatment. There was no significant difference in demographics or treatment outcomes between active and ex-IDU's. Full data on heroin injection use was available in 133 patients, crack use in 58 patients and alcohol in 72 patients. Overall heroin injection use pre- and post-treatment reduced from 51% of patients to 38% ($p<0.0001$), crack use reduced from 34% to 19% ($p<0.0001$), and alcohol use from 38% to 32% ($p=0.0035$).

Conclusion This is the largest study published to-date examining the impact of antiviral therapy in patients actively using illicit drugs. Of importance long term follow-up data showing low re-infection rates, a significant reduction in illicit drug use after therapy and excellent disease free and overall survival in patients who achieve SVR is presented. Our findings confirm previous, small scale studies showing that effective treatment for injectors is possible within the appropriate clinical setting.

Competing interests None declared.

PMO-152 CHARACTERISING THE IMMUNE STATUS OF HBV-SPECIFIC CD4+ AND CD8+ T-CELLS PRODUCING IL-17 IN PATIENTS WITH CHRONIC HEPATITIS B (CHB) VIRUS INFECTION

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¹H Cooksley,* ¹A Riva, ²M Simonova, ²K Katzarov, ¹S Chokshi. ¹Institute of Hepatology, Foundation for Liver Research, London, UK; ²Clinic of Gastroenterology & Hepatology, Military Medical Academy, Sofia, Bulgaria

Introduction Virus specific CD4+ and CD8+ T-cells are essential in the control of HBV infection and their functions are tightly regu-

lated by immune homeostatic control mechanisms, such as the programmed death (PD1) pathway, Tim3 and CD244. These pathways maintain the equilibrium between efficient control of viral replication and unnecessary inflammatory/immunopathological damage. Recent studies have described a unique subset of T-cells which produce IL-17. Preliminary studies suggest that IL-17-producing T-cells maybe involved in inflammation and liver damage but largely the role of HBV-specific IL-17 producing CD4+(Th17) and CD8+(Tc17) T-cells during chronic HBV infection remains elusive. Moreover, the impact of immunoregulatory signatures on these T-cells are unknown. The aim of this study was to characterise the role and immune status of virus-specific CD4+ Th17 and CD8+ Tc17 cells in CHB patients.

Methods Peripheral blood mononuclear cells were collected from ten treatment naïve HBeAg+ CHB patients and ten healthy controls. PBMC's were stimulated with recombinant HBcAg/HBsAg and PMA/Ionomycin. The frequency of total and virus-specific CD4 and CD8 T-cell producing IL-17/IFN γ and the expression of T-cell immunoregulatory molecules PD1, Tim3 and CD244 was analysed by flow cytometry.

Results Total number of CD8+ T-cells producing IL-17 was not different between chronic HBV patients and healthy controls. However HBV-specific Tc17 cells were significantly higher in CHB-patients compared to controls ($p=0.007$). Total Th17 were also higher in CHB-patients compared to controls ($p=0.03$) however the difference was more pronounced in HBV-specific CD4+ Th17 ($p=0.003$). Upon analysis of the immune-homeostasis signatures we found a higher expression of PD1 and CD244 on HBV-specific CD4+ and CD8+ T-cells producing IFN γ ($p<0.001$ and $p=0.026$ respectively) in CHB patients. No expression of Tim3 was found on these cells. However, HBV-specific Th17 cells in the CHB patients did not express PD1 or CD244 but had levels of Tim3 significantly lower than healthy controls ($p=0.027$).

Conclusion This study reveals the involvement of virus-specific Th17 and Tc17 in the pathogenesis of chronic HBV infection. Interestingly, we observe differential patterns of immunoregulatory signatures operational within the populations of virus-specific T-cells producing IFN γ and IL-17 which may influence their role in HBV disease.

Competing interests None declared.

PMO-153 HEPATITIS A VIRUS VACCINATION IN PERSONS WITH HEPATITIS C VIRUS INFECTION: CONSEQUENCES OF IMPLEMENTATION IN LOW INCIDENCE AREAS

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^{1,2}A Rowe,* ^{1,2}R Parker, ^{1,2}M J Armstrong, ^{1,2}D D Houlihan, ^{1,2}D Mutimer. ¹Centre for Liver Research and NIHR Biomedical Research Unit, University of Birmingham, Birmingham, UK; ²Liver and Hepatobiliary Unit, Queen Elizabeth Hospital, Birmingham, UK

Introduction Hepatitis A virus (HAV) superinfection in persons with hepatitis C virus (HCV) infection has been associated with a high mortality rate. Consequently HAV vaccination is recommended by many authorities for this patient group. The incidence of HAV is low and has been reducing in many areas, including Western Europe and the USA. The aim of this study was therefore to determine the cost and clinical consequences of routine vaccination in persons with HCV infection.

Methods To determine the mortality risk of HAV superinfection a meta-analysis including studies reporting mortality in HCV infected persons was done using RevMan 5.1 (Cochrane Collaboration). Data were extracted independently by two investigators and recorded on a standardised spreadsheet. The pooled mortality estimate was used