P382 FACTORS AFFECTING HEPATITIS C CARE IN PRISONS IN ENGLAND: A QUALITATIVE ANALYSIS OF STAKEHOLDERS IN LONDON AND ENGLAND

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Background NHS England is committed to eliminating Hepatitis C (HCV) virus infection as a public health problem by 2025. Prisons are a key setting for any elimination strategy due to the high prevalence of infection among prisoners, often due to injecting drug use (IDU). During 2018 we sought to understand barriers and enablers of acceptable HCV care to incarcerated people.

Methods We used a purposive sampling strategy to identify and recruit key stakeholders along the HCV care cascade in English prisons. We interviewed key stakeholders including commissioners, healthcare providers and patient advocates. The semi-structured interviews were recorded, transcribed, and analysed thematically. PHE Research Ethics Group approved the project.

Results Sixteen individuals were interviewed including nurses/doctors (primary and secondary care), commissioners in prisons and community settings, third sector organisations, an ex-incarcerated person, and laboratory personnel. Nine were based in London. Participants identified a number of important barriers. These included: Resource challenges (staffing levels, completing demands), care pathway issues (eg. implementation of testing, high patient turnover, continuity across prisons and to the community, patient nonattendance at clinic, overdependence on a single individual to ensure that the pathway functioned, and lack of reflex HCV RNA testing in laboratories), and patient and staff perceptions (eg. stigma, misunderstanding DAA side effects, cultural issues towards health and HCV). They also identified enablers that included: Providing resources (presence of a designated/paid champion), Senior support including from Governors (allowing stigma, patient attendance and pathway issues to be addressed), Collaboration (between prisons, personnel in prison, and community organisations), Peer to peer education and support, and a Focus on fail-safes in the pathway including effective planning for release or transfer.

Conclusion Prisons could be an important setting for HCV elimination strategies but multiple barriers exist to achieving model care pathways for HCV in prison. This research has identified areas of good practice and important areas for improvement.

Disclosure No significant relationships.

P384 EXTENSION FOR COMMUNITY HEALTHCARE OUTCOMES (ECHO) IMPLEMENTED FOR HEPATITIS C (HCV)/HIV CO-INFECTED PATIENTS IN TEXAS, USA

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Background HCV prevalence in people living with HIV (PLWHIV) is approximately 25% and progression of liver disease is accelerated in PLWHIV. ECHO is a telementoring "hub and spoke" model based on knowledge-sharing networks led by expert teams using videoconferencing for sessions with community healthcare providers. We describe development and implementation of an HIV/HCV ECHO to educate/support primary care and infectious disease (ID) providers to treat HCV in PLWHIV.

Methods Development began in October 2017. The expert panel assembled consisted of: ID specialist, hepatologist, psychiatrist, addiction medicine specialist, pharmacist, community health worker. An HIV/HCV didactic curriculum was developed. Initial spoke sites were providers at five HIV clinics. Equipment set up was ensured at the hub site. Minimal hardware requirement for spoke participation was a smart phone. A project website was developed. Innovations in use of REDCap, a cloud database platform, were developed. UT Health San Antonio HIV/HCV ECHO launched 1st October 2018.

Results One-hour ECHO sessions are held twice a month. The HIV/HCV curriculum covers 11 topics. From 1st October 2018 – 22nd January 2019, 158 individuals participated in sessions including clinicians responsible for 1,155 PLWHIV, 42 co-infected with HCV. REDCap innovations included direct entry of de-identified clinical information for sessions into REDCap with export into a PDF format, automatic assignment of ECHO identification numbers for initial and follow up case presentations, direct entry of information required for Continuing Medical Education credit into REDCap. Website views were 1887 with 253 individuals using the site.

Conclusion ECHO has been an effective foundation for a growing Community of Practice and Learning for HIV/HCV management. REDCap innovations facilitate ECHO administration. Reach to HIV/HCV co-infected patients has been demonstrated. The ECHO model should be considered to improve education about HCV management among HIV providers and to improve access to HCV treatment and cure for PLWHIV in their medical home.

Disclosure No significant relationships.

P386 CANCER RISK AMONG PEOPLE WITH HIV, HBV AND/OR HCV INFECTIONS

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Background HIV, hepatitis B virus (HBV) and hepatitis C virus (HCV) infections each are associated with increased cancer risk. In this study, we assessed the effect of co-occurrence of HIV, HBV and HCV on all cancers, anal cancer, non-Hodgkin Lymphoma (NHL) and liver cancer.

Methods We used the British Columbia Hepatitis Testers Cohort (BC-HTC) which includes all individuals (~1.7 million) tested for HCV or HIV, or diagnosed with HCV, HIV, or HBV linked with data on cancers. We included individuals tested for all three infections since 1990 and followed them

from the date of their last test until the first cancer diagnosis, death, or 12/31/2015. We utilized the Fine and Grey competing risks regression model to estimate adjusted sub-distributional hazard ratios (aHRs) for outcomes, with death as a competing risk.

Results Among 514,501 individuals tested for all infections, 12,586 had any cancer (2.45%), 100 had anal cancer (0.02%), 552 had NHL (0.11%), and 1,081 had liver cancer (0.21%) during a median follow-up of 4.19 years. Compared to no infection, the aHR for all cancers was the highest for HIV/HBV co-infections (HR 2.55, 95% CI: 1.91–3.42) followed by triple infections (aHR 2.29, 95% CI: 1.80–2.89). The risk of anal cancer was higher among individuals with HIV (triple infection aHR 22.61, 95% CI: 7.27–70.33), while risk of the liver cancer was higher among those with HBV or HCV mono or co-infections and triple infections. The risk of NHL was the highest among HIV/HBV co-infections followed by triple infection.

Conclusion HIV, HBV and HCV infections are associated with an overall higher risk of cancer. The highest risks for anal cancer and NHL were among those living with HIV infection. The observed association between HCV and anal cancer, which may be due to the presence of human papillomavirus and/or residual confounding, requires further investigation.

Disclosure No significant relationships.

P387 ASSESSMENT OF THE PERFORMANCE OF WHO PREQUALIFIED HIV RAPID TESTS AND HCV RAPID TECHNOLOGY ON DRIED BLOOD SPOT ELUATS

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Background Rapid testing is a new technological alternative in the diagnostics of HIV and HCV. In view of their intrinsic performance, they can be used on several specimens: whole blood, serum; and plasmaThe present study aims to evaluate the performance of HIV and HCV rapid tests on Dried Blood Spots (DBS) eluates.

Methods Using a Respondent Driven Sampling protocol, 492 dried blood samples were collected from intravenous drug users. The serostatus of the samples towards HIV and HCV was determined by electrochemiluminescence (Cobase411 - Roche, USA) taken as the gold standard. HIV-positive cases were confirmed by Western Blot (HIVBlot 2.2, MPDiagnostics). The rapid tests evaluated are based on immunochromatography, are WHO prequalified: KHB Colloidal HIV 1 + 2 (KHB, China), SD Bioline HIV 1 + 2 (SDBionline, Korea) and UniGold HIV 1 + 2 (Unigold, Ireland). For HCV, these are: KHBColloidal HCV (KHB, China), INFO (Turklab, Turkie); and ABON (Abon, China).

Results From the HIV rapid tests assessment showed that SDBioline highlighted a specificity of 96.28% and a sensitivity of 70.97%, whereas KHB showed a sensitivity of 87.1% and a specificity of 98.51%. UniGold had the highest specificity (100%) and the lowest sensitivity (45.1%). In comparison with the HIV rapid tests, the HCV tests had very low specificities: 18.52% for KHB; 37.04% for INFO and 47.62% for ABON. On the other hand, sensitivity for all HCV rapid tests was 100%.

Conclusion To sum up, HIV and HCV rapid tests were shown to be able to detect anti-HIV and anti-HCV antibodies in DBS eluates. However Based on the overall results of the HCV rapid tests, it is recommended that DBS specimens eluate should not be used in HCV serological Tests. This indicates that there is a great need for further studies to argue the use rapid tests for serological screening of DBS eluatsts.

Disclosure No significant relationships.

P388 EVOLUTION OF HEPATITIS C CARE CASCADES AMONG HIV AND HEPATITIS B CO-INFECTED PATIENTS IN BRITISH COLUMBIA, CANADA

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Background Improvements in tolerability and cure rates of hepatitis C virus (HCV) with direct acting antiviral (DAA) treatment led to expansion of patients treated for HCV; however, research examining the impact of these changes on linkage to care and treatment initiation among patients with hepatitis B (HBV) and HIV co-infection is limited. We compared the care cascades for patients with HBV and HIV co-infection before and after the introduction of DAAs, among a large population-based cohort in British Columbia (BC).

Methods We analyzed data from the BC Hepatitis Testers Cohort, including all individuals tested for HCV or HIV between 1992 and 2015 at the BC Centre for Disease Control Public Health Laboratory, as well as cases of HIV (1980–2015), HCV (1990–2015), HBV (1990–2015), and active tuberculosis (1990–2015) included in registries of reportable diseases in BC. Care cascades were stratified by HIV and HBV co-infection and compared for all individuals with HCV alive at the end of 2012 (pre-DAA) and 2017 (post-DAA), including the following stages: (1) HCV diagnosed; (2) HCV RNA tested; (3) HCV RNA positive; (4) HCV genotyped; (5) initiated antiviral treatment; and (6) sustained viral response (SVR).

Results 53,030 individuals diagnosed with HCV were alivein 2012 and 52,987 in 2017, were included in respective care cascades. In comparison to the pre-DAA era (2012), there were considerable increases in genotyping, treatment, and cure among individuals from all co-infection categories in 2017. For example, the proportion of those with known active infection who initiated treatment was 52% versus 23% among HCV/HIV ($p<0.01$), 51% versus 33% among HCV/HBV ($p<0.01$), 54% versus 20% among HCV/HBV/HIV ($p<0.01$), in 2017 and 2012 respectively.

Conclusion Considerable improvements have been noted in linkage to care and treatment of HCV in BC following introduction of DAAs, particularly among patients with HBV and HIV co-infections.

Disclosure No significant relationships.