

HIGH RISK OF HEPATITIS C SEROCONVERSION AMONGST FEMALES WITH EXPOSURE TO BOTH PRISON AND DRUG TREATMENT IN ENGLAND

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Background:

Sentinel surveillance of blood borne viruses (SSBBV) in England, established in 2002, collects positive and negative results for BBV tests from participating laboratories. We aimed to estimate incidence of hepatitis C virus (HCV) amongst at risk groups, using HCV antibody seroconversion in SSBBV.

Methods:

We conducted a retrospective cohort study of people aged ≥ 16 years with >1 result in SSBBV. Individuals entered the cohort on the date of their first negative test and exited on the final negative test or first positive test. Only tests within three years of another test, or between two sequences of tests were included; individuals had to enter the cohort before 2020. Exposures were assigned based on location of tests including drug service, prison, sexual health service and other healthcare settings. Incidence rates (IR) were calculated, a Kaplan Meier curve generated, and Cox regression performed.

Results:

A total of 694,216 people were included in the cohort accounting for 1,327,273 person years; 8,123 seroconversions were identified, an overall IR of 0.61 per 100 person years (95% CI: 0.60-0.63). Those with an exposure to drug treatment or prison had an IR of 4.74 (95% CI: 4.55-4.94) and 2.37 (95% CI: 2.25-2.50) per 100 person years respectively. Cox regression showed significantly higher hazard ratios (HR) for those exposed to drug treatment and prison particularly for women where an exposure to both these settings had a HR of 16.78 ($p < 0.001$; 95% CI: 13.81-20.39) compared to 7.21 ($p < 0.001$; 95% CI: 6.45-8.07) for men with the same exposures.

Conclusion:

Our work shows an increased risk of HCV seroconversion amongst women with exposure to both prison and drug treatment. This population faces multiple health inequalities and barriers to prevention and treatment services which requires focused interventions if we are to realise ambitions for elimination of viral hepatitis by 2030.

Disclosure of Interest Statement:

No disclosure or conflict of interest