

HEPATITIS C VIRUS EXPOSURE, INFECTION AND ASSOCIATED RISK BEHAVIOURS IN TWO MAXIMUM-SECURITY PRISONS IN NEW SOUTH WALES, AUSTRALIA

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Background: The Surveillance and Treatment of Prisoners with hepatitis C (SToP-C) study is evaluating the impact of rapid scale-up of interferon-free HCV therapy on HCV transmission in prisons in New South Wales, Australia. This analysis characterises HCV epidemiology and risk behaviours among prisoners in two maximum-security prisons in SToP-C study.

Methods: Data for this analysis includes prisoners enrolled from two maximum-security prisons between October 2014 and March 2016. At enrolment, participants received testing for HCV antibodies/RNA and completed a detailed survey, including injecting behaviours. Injecting behaviours by HCV infection/exposure status were evaluated.

Results: In March 2016, 393 prisoners were enrolled (Prison A: n=308; Prison B: n=85). The median age was 34 years (IQR: 27, 44). The median duration of stay at the current prison was 2 years (IQR: 0.9, 5). Overall, 54% (n=213) were HCV antibody negative (Ab-), 18% (n=69) were HCV antibody positive/HCV RNA negative (Ab+/RNA-; including 19 with self-reported previous HCV treatment), and 28% (n=111) were HCV RNA positive (RNA+). Injecting illicit drugs during the current imprisonment was reported in 78% (83/111) of those RNA+, and 67% (46/69) of those Ab+/RNA-, compared with 11% (24/213) of those Ab- ($P<0.001$). Injecting in the previous month was reported by 49% (54/111) of those RNA+, and 32% (22/69) of those Ab+/RNA-, compared with 4% (8/213) of those Ab- ($P<0.001$). Among those injecting in the previous month, 86% (n=72) reported sharing injecting equipment.

Conclusion: A high proportion of prisoners with HCV infection from maximum-security prisons reported injecting risk behaviours. Among prisoners at risk of HCV, those with previous HCV exposure and clearance were more likely to report high risk injecting than those with no previous exposure, suggesting the risk for re-infection and the need for increased prevention activities. Surveillance of HCV incidence should focus on detecting both HCV re-infection and primary infection.

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