

INCIDENCE OF HEPATITIS C VIRUS INFECTION IN TWO MAXIMUM-SECURITY PRISONS IN NEW SOUTH WALES, AUSTRALIA: THE STOP-C STUDY

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Background:

HCV transmission is high in prisons. The Surveillance and Treatment of Prisoners with hepatitis C (SToP-C) study in New South Wales, Australia consists of two major phases: i) Surveillance, HCV status and risk behaviour are evaluated at study entry and monitored longitudinally; ii) Treatment scale-up, participants with detected HCV-RNA are offered sofosbuvir/velpatasvir. This analysis assessed HCV incidence in two SToP-C maximum-security prisons before treatment scale-up.

Methods:

Surveillance phase data of participants enrolled during October 2014-November 2016 with at least one follow-up visit was used. Participants were screened for HCV-antibody (Ab) and HCV-RNA at enrolment. HCV-Ab or HCV-RNA negative participants were tested every six months. Those with HCV-Ab negative and HCV-Ab positive/HCV-RNA negative were considered at risk of HCV primary infection and reinfection, respectively.

Results:

Among 748 participants screened, 171 were included in analysis (122 and 49 were at risk of HCV primary infection and reinfection, respectively; Median age 36 years; median duration of stay at the prison 4 years). During 178 person-years (py) of follow-up, 9 incident infections were observed, including 5 primary and 4 reinfections. HCV incidence was 5.1/100 py (95%CI: 2.6-9.7). All 9 participants with incident HCV reported ever injecting drug use (IDU), and 5 reported IDU in the past month in prison. Among those reporting ever IDU, overall HCV incidence was 13.0/100 py (95% CI: 6.8-25.0); primary infection incidence was 18.6/100 py (95% CI: 7.7-44.7); and reinfection incidence was 9.4/100 py (95% CI: 3.5-25.1). Among those reporting IDU in the past month, HCV incidence was 35.5/100 py (95% CI: 14.8-85.3), while all participants with incident HCV (n=5) reported sharing needle/syringe.

Conclusion:

High HCV incidence was found in SToP-C maximum-security prisons, supporting the need for comprehensive prevention strategies, including harm reduction and a HCV treatment-as-prevention evaluation. HCV transmission was primarily associated with IDU, particularly recent IDU in prison.

Disclosure of Interest Statement:

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