

## ASSOCIATION BETWEEN PRESCRIPTION OPIOIDS AND HEPATITIS C VIRUS SEROCONVERSION AMONG PEOPLE WHO USE INJECTION DRUGS IN BRITISH COLUMBIA

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### Background:

Prescription opioids (POs) may be associated with rising hepatitis C virus (HCV) incidence in some jurisdictions. We evaluated the relationship between POs and HCV seroconversion while accounting for opioid misuse.

### Methods:

The Hepatitis Testers Cohort includes all individuals tested for HCV (1992-2015) in British Columbia (BC) and is linked to administrative databases. We limited the cohort to people who use injection drugs (PWID) using a validated algorithm based on physician and hospitalization billing codes. Codes were also used to flag stimulant and opioid misuse (OM) - although it was not possible to differentiate between OM due to illicit vs. prescription opioids. PO data were obtained from BC's province-wide prescription drug database. Cox proportional hazards models were used to identify predictors of seroconversion among repeat testers.

### Results:

Between 2000 and 2015, there were a total of 4,066 seroconversions among 42,568 PWID. Overall, 68.2% were dispensed a PO. The HCV incidence rate was 1.32 per 100 person-years among PO users vs. 1.15 among non-PO users. In crude analysis, POs were associated with HCV seroconversion (HR=1.17, 95%CI=1.09-1.26); however, in multivariable analysis after adjusting for OM, PO was not a significant predictor. In a multivariable model without OM, POs were associated with HCV seroconversion (aHR=1.23, 95%CI=1.15-1.32). Other significant predictors of HCV seroconversion included Caucasian race (aHR=1.94, 95%CI=1.67-2.25), more recent birth cohorts (1965-1974 and >1974 vs. <1965), greater social/material deprivation, stimulant misuse (aHR=1.45, 95%CI=1.36-1.55), HBV infection (aHR=1.66 95%CI=1.41-1.94) and HIV infection (aHR=2.49, 95%CI=2.36-3.00).

### Conclusion:

In this cohort study, POs were not independently associated with HCV seroconversion. The increased HCV risk associated with POs in crude analysis may be mediated through opioid misuse.

### Disclosure of Interest Statement:

*The authors have no conflicts of interest to disclose.*