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.