INJECTION OF PRESCRIPTION OPIOIDS AND RISK OF BLOOD-BORNE INFECTIONS AMONG PEOPLE WHO INJECT DRUGS IN TORONTO

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Background:
Injection of controlled-release prescription opioids may be associated with infective endocarditis (IE) and hepatitis C (HCV) incidence among people who inject drugs, though more data are needed. We therefore investigated HCV infection and IE hospitalization among people injecting different types of opioids in Toronto, Ontario.

Methods:
We used data (Mar/2018- Mar/2020) from the Ontario Integrated Supervised Injection Services study, a community-recruited prospective cohort of people who inject drugs. Self-reported data were linked to provincial administrative health data, ICES. Self-reported drug injection was classified as recent (past 6 months) use of hydromorphone (normal and controlled-released formulations) vs. other controlled-released (CR) opioids (e.g. oxycodone/morphine) vs. unregulated opioids (e.g., fentanyl, heroin, etc.). Administratively captured outcomes of interest included IE hospitalization (ICD-10 I330, I339, I38, I39, B376) and HCV infection (ICD-10 B17.1, B18.2 or drug dispensation). Multivariate Cox regression estimated adjusted hazard ratios (aHR) with 95% confidence interval (CI) for drug injection and time to outcome occurrence - adjusted for age, male sex at birth, and race and ethnicity (white vs. other).

Results:
514 people were included in the IE cohort (67% cisgender men, median age 40, 55% white), and 415 HCV-negative entered the HCV cohort (66% cisgender men, median age 39, 54.5% white). Respectively, for HCV and IE, the incidence rate (per 100 person-year) was 20.2 and 1.6 for hydromorphone, 9.9 and 3.3 for CR opioids, and 9.0 and 1.8 for other injectable drugs. For HCV infection, aHR for hydromorphone injection was 2.2 (95%CI 0.5-9.2) vs. CR opioid injection and 2.2 (1.2-4.1) vs. unregulated opioids. For IE hospitalization, hydromorphone's aHR was 0.6 (95%CI 0.1-6.5) vs. other CR opioids and 0.8 (0.2-3.5) vs. unregulated opioids.

Conclusion:
We observed an increased risk for HCV infection for CR opioid injection compared to injection of unregulated opioids, but not for IE hospitalization across exposure groups.

Disclosure of interest statement:
DW is a co-founder of DoseCheck, a commercial entity developing a mobile drug-checking technology.