OPIATE AGONIST THERAPY AND PREVENTION OF HCV TRANSMISSION AMONG PEOPLE WHO INJECT DRUGS: THE IMPORTANCE OF CLINICALLY-INDICATED AND PATIENT-PERCEIVED DOSAGE ADEQUACY

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Introduction: Opiate agonist therapy (OAT) is key in preventing hepatitis C virus (HCV) transmission among people who inject drugs (PWID). Yet, little is known about the importance of OAT dosage adequacy in shaping HCV infection risk. We investigated the joint association of clinically-indicated and patient-perceived adequate OAT dosage levels with HCV infection risk among PWID.

Methods: Data were drawn from a prospective cohort study of initially HCV RNA- (Ab+/-) PWID (2004-2017). At 6/3-month intervals, participants were tested for HCV Ab/RNA and filled behavioral questionnaires, self-reporting: current OAT enrolment (yes/no), their prescribed dose (high dose defined as: ≥60mg/day if methadone; ≥16mg/day if buprenorphine) and perceived dosage adequacy (adequate/inadequate). The exposure variable was a composite, five-level measure: no OAT, OAT: high/adequate, high/inadequate, low/adequate and low/inadequate. Cox regression analyses were fit adjusting for gender, injecting duration, housing, recent incarceration and previous HCV infection among PWID eligible for OAT.

Results: Of 513 participants (median age: 35.0; 77.6% male), 168 acquired HCV over 1422.6 person-years (p-y) of follow-up [incidence: 11.8/100 p-y (95% CI: 9.5-12.9)]. For the 1589/3421 study visits where OAT was reported, 36.5%, 11.8%, 36.9% and 14.8% reported high/adequate, high/inadequate, low/adequate and low/inadequate dosage, respectively. Compared to those not on OAT, PWID prescribed a high OAT dose had a lower HCV risk *if dosage was perceived adequate* [(aHR: 0.37 (0.18-0.77)], yet results were inconclusive *if perceived inadequate* [(aHR: 0.38 (0.12-1.21)]. Additionally, compared to those not on OAT, PWID prescribed a low OAT dose had a similar HCV risk *if dosage was perceived adequate* [aHR: 1.08 (0.67–1.75)], and a higher risk *if perceived inadequate* [aHR: 2.07 (1.22–3.52)].

Discussion: Our findings emphasize the importance of OAT dosage adequacy, both as clinically-indicated and self-evaluated by PWID, in HCV prevention. Prevention strategies should not rely solely on OAT access, and should consider the importance of dosage.

Disclosure of interest statement
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