

MODE OF TRANSMISSION OF INCIDENT HEPATITIS C IN GAY AND BISEXUAL MEN IN PREPX, AN HIV PRE-EXPOSURE PROPHYLAXIS (PrEP) STUDY

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Introduction: PrEPX was an Australian HIV pre-exposure prophylaxis (PrEP) intervention study conducted between 2016 and 2018. We describe hepatitis C (HCV) incident cases among PrEPX participants, and likely modes of HCV transmission.

Methods: HCV incident cases were identified using laboratory data from the Australian Collaboration for Coordinated Enhanced Sentinel Surveillance (ACCESS) collected at each clinic visit. Likely routes of HCV transmission were determined using ACCESS survey data related to sexual practices, condom use and injecting (IDU), alongside interviews and medical record reviews.

Results: 2355 PrEPX participants tested HCV antibody/RNA negative at enrolment and had at least one follow-up HCV test, accumulating 2444.6 person-years of follow-up. Eight incident HCV cases were identified (incidence 0.33 per 100PY); all were men who had sex with men. Clinical, laboratory and survey data were available for all cases, and six cases were interviewed.

Three cases likely acquired HCV through IDU. A fourth case reported injecting drugs, but also reported always using clean needles and reported sexual behaviours that may have placed him at risk of HCV at the estimated time of HCV acquisition; he had anal HSV2 (first episode), chlamydia and gonorrhoea, and shortly after reported condomless receptive anal intercourse (CLRAI) in a group setting at a sex-on-premises venue (SOPV).

Four other cases had no history of IDU and likely acquired HCV through CLRAI. All reported a history of CLRAI in group settings at SOPVs with reported anal trauma during the estimated time of HCV acquisition.

Conclusion: Compared to international PrEP studies, incident cases of HCV were uncommon among PrEPX participants. Of eight cases, three likely acquired HCV through IDU, and five likely acquired HCV through CLRAI in a group setting at

SOPV, usually with associated anal trauma. This highlights the need for HCV messaging in SOPV and other settings where men have group sex.

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