

## EVALUATION OF TREATMENT OF HCV INFECTION IN ACTIVE INJECTION DRUG USERS

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**Background:** Approximately 70% of HCV infected individuals in Canada are people who inject drugs (PWID). However, many healthcare providers require PWID to be drug-free for 6-12 months before commencing HCV treatment. The aim of this study is to illustrate that HCV treatment can be successful in PWID without requiring a period of abstinence.

**Methods:** A retrospective observational study was conducted in active PWID (currently injecting recreational drugs) receiving HCV therapy between 2011 and 2015 at a multi-disciplinary inner city clinic, favouring engagement and retention in care of the target population. Data regarding HCV treatment, HIV co-infection status, as well as demographic and social variables was collected. The primary endpoint was a sustained virologic response (SVR) with respect to HCV infection.

**Results:** We treated 40 eligible subjects (34 male) with a median age of 53 years, 24 (60%) genotype 1a/b, 10 (25%) genotype 3, 33 (83%) previously treatment naïve, 11 (27.5%) co-infected with HIV. With respect to illicit drug use, there were 25 (63%) using heroin, 28(70%) using cocaine, 9 (22.5%) using other stimulants and 23 (58%) on opiate substitution therapy. Regarding HCV therapy, 25(63%) received IFN-based and 15(37%) all-oral regimens. In total, 31(78%) subjects achieved SVR, 17 (68%) and 14(93%) on IFN-based and all-oral regimens ( $p < 0.05$  favouring all-oral regimens). Within the study population, 7 (64%) with HIV co-infection, 18(75%) with genotype 1, 9 (90%) with genotype 3, 21(84%) on heroin, 21 (75%) on cocaine and 7 (78%) using other stimulants achieved SVR. Three (8%) discontinued due to toxicity and 4(10%) relapsed. Finally, with a mean of 560 days of follow-up, there were no cases of reinfection.

**Conclusion:** Active PWID can be effectively treated for HCV infection with high SVR rates, especially with all-oral regimens. With structured follow-up, rates of reinfection can be minimized, enhancing treatment uptake in high-risk populations of “core transmitters” of HCV infection.