

## LOW RATE OF REINFECTION AMONG A COHORT OF PEOPLE WHO INJECT DRUGS SUCCESSFULLY TREATED FOR HEPATITIS C VIRUS INFECTION WITHIN A MULTIDISCIPLINARY PROGRAM

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**Background:** Concerns about reinfection may be limiting HCV treatment uptake among people who inject drugs (PWID), with rates approaching 20/100 person-years reported in some cohorts. Developing a strategy to reduce risks of reinfection may enhance treatment uptake in this priority population, particularly from the perspective of governmental authorities funding such programs.

**Methods:** We identified a cohort of PWID treated with direct-acting antivirals at our centre. Following cure, patients were maintained in long-term follow-up in a multidisciplinary program to address their medical, psychologic, social, and addiction-related needs. HCV RNA measurements were repeated every 6 months, and ongoing risk behaviors for HCV transmission were documented. The primary outcome of this analysis was the occurrence of reinfection.

**Results:** 243 PWID have achieved SVR and maintained in long-term follow-up. Key characteristics: mean age 53 years, 25% female, 78% treatment naïve, 17% cirrhotic, 63% genotype 1. Current injection drug use was documented in 195 individuals. The median duration of follow-up is 714 days (range 134-1841) days, with 86% followed >1 year. Reinfection was observed in 4 cases (1.7% of the treated cohort, 2% of the confirmed active PWID cohort), all reinfection cases among the latter cohort. Based on 474 person-years of follow up, this represents a reinfection rate of 0.84/100 person-years. In the confirmed active PWID cohort, in 379 PY, the rate is 1.05/100 PYs. Those who presented with reinfection were younger (mean age 47) and more often male, with no other distinguishing characteristics.

**Conclusion:** In a population with significant ongoing risk of reinfection, we only documented this in 1.7% of cases. Approaches including long-term maintenance in multidisciplinary care, as well as programming which addresses upstream determinants of health, such as food security and housing (included in our program), may optimize long-term outcomes of HCV treatment in PWID by significantly reducing the rate of reinfection.

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