

# MORBIDITY AND MORTALITY IN HCV-INFECTED PEOPLE WHO USE DRUGS (PWUD): BEYOND THE SVR12

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## Background

In Canada there are approximately 250,000 individuals currently living with HCV infection. The prevalence of HCV infection among people who use drugs (PWUD) exceeds 66%. The medical system can be used as a lever to treat HCV as well as maintain long-term engagement in care to promote safer drug using behavior and provide more effective addiction interventions.

## Methods

A retrospective cohort evaluation was conducted among active/recent PWUD who completed HCV treatment at our centre. All were enrolled in a multidisciplinary program of care to address medical, social, psychological and addiction-related needs. In this analysis, we report baseline demographics, HCV liver related complications, reinfection and mortality.

Figure 1. Fibrosis Pre and Post Tx

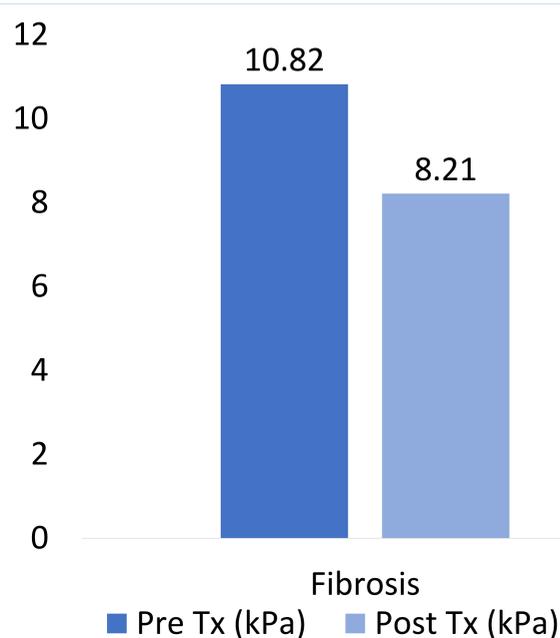


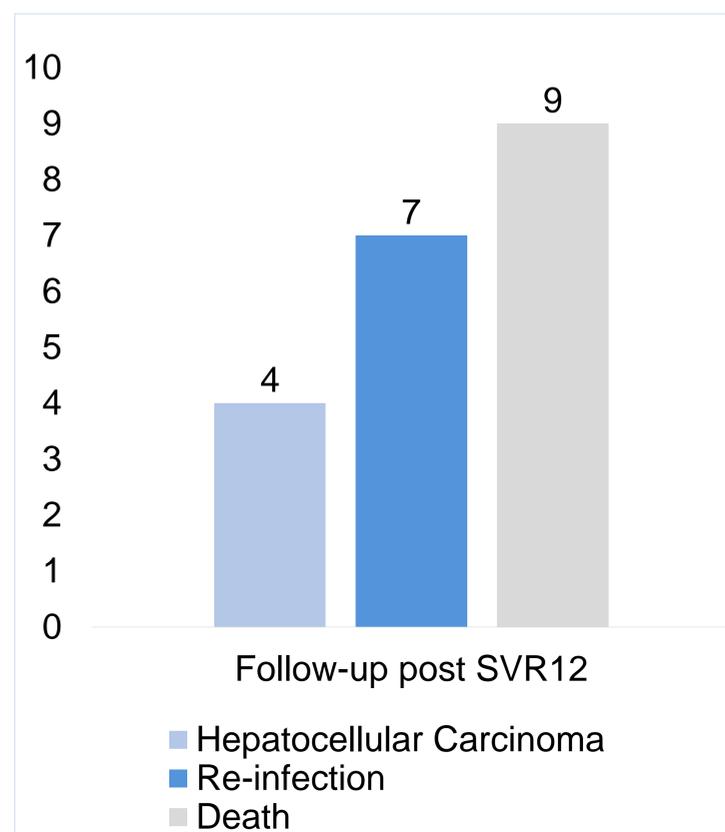
Table 1. HCV SVR12 Demographics

Demographics	n= 386
Mean Age (years)	54
Female (n,%)	83 (22)
Drug use	
Opioid (n,%)	103 (27)
Amphetamine (n,%)	77 (20)
Cocaine (n,%)	95 (25)
OST (n,%)	154 (40)
Homeless (n,%)	53 (14)
Psychiatric condition (n,%)	187 (49)

## Results

386 active/recent PWUD who achieved HCV cure (SVR12) at our centre are included in this analysis. Key demographics include: mean age 54 years, 22% female, 27%/20%/25% opioid/amphetamine/cocaine use, 40% opiate substitution therapy, 14% homeless, and 49% with a diagnosed psychiatric condition. Mean fibrosis score improved from 10.82 kPa at baseline to 8.21 kPa at SVR12. In median follow-up of 2.7 years, there have been 4 cases of hepatocellular carcinoma (HCC) (0.39 per 100 person-years), all among cirrhotics. This is somewhat lower compared to cirrhotic HCC rates of 3.7 per 100 py in the general HCV-infected population. There have been 7 cases of HCV reinfection (0.68 per 100 person-years) and 9 deaths post HCV treatment. One death was due to hepatocellular carcinoma and five to non-liver related complications. Three deaths were due to a drug overdose (0.15 per 100 py follow-up from initial attendance at clinic). Considering the complexity and drug use behavior of the target population, as well as the rate of overdose-related deaths in the community, we would have expected 33 drug overdose deaths.

Figure 2. Follow-up post SVR12



## Conclusion

We report on long-term follow-up of active/recent PWUD who have achieved HCV cure. Long-term engagement in care also appears to reduce the rate of HCV reinfection and opioid-related mortality. We observed a significant reduction in overdose-related deaths in our cohort, speaking of the important role programs such as ours could play in the societal response to the opioid epidemic. HCC continues to occur at a rate comparable to that reported among non-PWUD cirrhotic patients. This underscores the need to design systems to maintain cirrhotic PWUD in follow-up for HCC screening after SVR12.

## Acknowledgements

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