

RE-INFECTION RATES OF HEPATITIS C IN INDIVIDUALS WHO ACHIEVED SUSTAINED VIROLOGIC RESPONSE AFTER TREATMENT WITH DIRECT ACTING ANTIVIRAL THERAPY

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Background:

The introduction of direct-acting antiviral therapy (DAA) marked a new treatment era for hepatitis C virus (HCV) infection. Despite the success of DAA treatment, a major hurdle has been re-infection among people who inject drugs (PWID) or engage in other high-risk behaviours. The objective of this study was to assess the re-infection rates in individuals who were successfully treated with DAAs and to identify common underlying factors.

Methods:

Data were extracted from the Hepatitis C Positive and At-Risk (HEAR) database on all individuals who: 1) underwent direct acting antiviral (DAA) therapy to treat HCV from December 2014 to November 2020, 2) have a history of substance use, and 3) had at least one HCV viral load collected > 12-weeks post-treatment. Follow-up time was calculated from the last day of treatment to the date the latest HCV viral load was collected.

Results:

Overall, 143 patients were included with a mean age of 46.2 years and total follow-up time of 164.6 years. At the time of treatment start, snorting and/or injection drug use (IDU) was reported by 49.0% in the preceding 2 years. A total of 17 re-infections were identified for a rate of 10.3 (95% CI 6.4-16.6) re-infections per 100 patient years. Younger age, lack of primary care, unstable housing and recent IDU (within 6 months) appear to be factors pre-treatment that may increase the likelihood of re-infection.

Conclusion:

Despite the success of DAA therapy to treat individuals with HCV, the results of this study further underline the disproportionate re-infection rates in those engaging in high-risk behaviours. In addition, we identified factors such as younger age, lack of primary care and unstable housing as risk factors for re-infection. Within these high-risk populations, education about the risks of re-infection as well as public health programs to reduce risk could be beneficial.

Disclosure of Interest:

None