LONG-TERM EVALUATION OF HCV RE-INFECTION RATES AMONG INNER CITY VULNERABLE POPULATIONS

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Introduction: One of the factors limiting HCV (Hepatitis C Virus) treatment programs among inner city residents is concern about the high risk of recurrent viremia after successful treatment. Although meta-analyses suggest this rate may only be 2-3/100 person-years, some cohorts report rates 5-10 times higher. Among programs that have been providing HCV therapy in this setting for 10 years or more, there is an opportunity to address this issue longitudinally, comparing re-infection rates as a function of time especially as patients are maintained in long-term care after HCV cure.

Methods: We accessed the longitudinal data base of our centre from 2011-21 to evaluate the rate of recurrent viremia after a cure of HCV was achieved among individuals with documented ongoing drug use. This analysis focused on the crude rate of HCV re-infection as well as rates per chronological year, time post-HCV cure and any correlates of these outcome measures.

Results: From 2011-2021, we had a total of 25 patients who had documented re-infection at our center, 1.2/100 person-years. Number of reinfections per chronological year varied from 0-7, with the highest rate in 2020, in the era of the COVID-19 pandemic, where maintenance in multidisciplinary care was challenging. For this year alone, the re-infection rate was 8.5/100 person-years. The average time post-cure for a re-infection event was 1.9 years, with 20/25 (80%) within 2 years and 2/25 (8%) after 5 years.

Conclusion: In comprehensive programs such as ours favoring maintenance in long-term multidisciplinary follow-up after HCV cure, reinfection rates remain low and most often occur within 2 years, with few if any events occurring after 5 years. This information will be useful in planning systems of care for increasing access to HCV care in active drug users while monitoring for re-infection in populations at risk of its occurrence.

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