

Changes in self-reported quality of life associated with successful DAA hepatitis C treatment in people who use drugs

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Background:

Chronic infection with the hepatitis C virus (HCV) has a detrimental impact on health-related quality of life (QoL). The introduction of highly-effective interferon-free direct-acting antiviral (DAA) therapy has spurred the scale-up of treatment among people who inject drugs (PWID) in a number of countries. Data are lacking regarding the impact of treatment success on QoL for this population in this new era.

Methods:

We implemented two study designs to assess the association between QoL (measured using the EQ-5D-5L instrument) and HCV treatment outcome among PWID in Scotland. First, using data from two sweeps of the Needle Exchange Surveillance Initiative (2017/18 and 2019/20), a national, cross-sectional, voluntary, anonymous survey, we examined the association between QoL and achievement of sustained virologic response (SVR) using multivariable linear regression analysis. In the second, longitudinal, study involving 83 PWID who underwent successful antiviral therapy, we compared QoL between the time-points (a) treatment start (baseline), (b) time of SVR test, and (c) 12 months following treatment start, using linear mixed-effects regression analysis.

Results:

Among the cross-sectional study population ($n=4009$), 41% were ever chronically HCV infected, of whom 49% ($n=799$) had ever undergone antiviral therapy. Adjusting for demographic, lifestyle, and living situation covariates, there was neither evidence for a QoL improvement associated with viral clearance among those who had ever been treated for HCV ($B = 0.03$, $P=0.32$). In contrast, among the longitudinal study participants QoL improved (compared with the baseline QoL measurement) at the time of SVR test ($B = 0.19$, $P<0.01$), but QoL at 12 months following treatment start was not statistically distinguishable from baseline QoL ($B = 0.03$, $P=0.52$).

Conclusion:

Evidence from our large population-based survey indicates that successful antiviral treatment does not lead to a durable improvement in QoL among DAA-treated HCV-infected PWID, consistent with data from the longitudinal study demonstrating a transient positive impact on QoL around the time of SVR achievement.

Disclosure of Interest Statement

SJH has received honoraria from Gilead, unrelated to submitted work. No conflicts of interest declared.