PREDICTORS OF HEPATITIS C VIRUS TREATMENT OUTCOMES IN A HARM REDUCTION-FOCUSED PRIMARY CARE PROGRAM IN NEW YORK CITY

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Background: The social determinants of health that influence the entire hepatitis C virus (HCV) treatment cascade must be identified to achieve HCV elimination goals. This project aimed to evaluate the influence of these factors on HCV treatment completion and achievement of sustained virologic response (SVR).

Methods: We used retrospective cohort data from the primary care-based REACH Program. Among persons who began direct-acting antiviral treatment between December, 2014 and March, 2018 we assessed these outcomes: 1) HCV treatment completion; and 2) return for 12-week post treatment viral load visit (SVR12). Several predictors were ascertained including: substance use; psychiatric symptoms and history; housing instability; treatment regimen; and sociodemographic data. We then evaluated associations between predictors and outcomes using univariate and multivariable statistical methods.

Results: From a cohort of 333 patients treated in an urban primary care center providing comprehensive harm reduction care to those who use or formerly used drugs, multivariable analysis identified housing instability as a single significant predictor for HCV treatment non-completion (odds ratio [OR]: 0.38; 95% confidence interval [CI]: 0.16-0.94). Of that original cohort, 305 patients completed treatment (92%) and were assessed for returning for SVR12. Among those completing treatment, 228 (75%) returned for SVR12 assessment; predictors of this outcome included a higher (OR: 2.88; 1.03-8.07) or unknown (3.09; 1.30-7.32) liver fibrosis stage and having Medicaid (compared to other insurances; OR 0.30; 0.12-0.78). The identifiers which were not associated with treatment completion or return for SVR12 included any history of substance use, regardless of substance type and recency, psychiatric symptoms and history, and history of incarceration.

Conclusion: Educational and motivational strategies should be developed to promote individuals with early stage liver disease to return for SVR12 viral load testing. Innovative strategies to help unstably housed persons complete HCV treatment are urgently needed in order to reach HCV elimination targets.