Real-world outcomes of HCV treatment in homeless and marginally housed adults
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Background
- HCV affects 3-4 million adults in the US
- Homeless and marginally housed (HMH) adults have higher rates of HCV than those with stable housing
- Approximately 44% of chronically homeless adults are HCV-infected
- High HCV prevalence likely due, in part, to a high prevalence of substance use disorders.
- HMH adults have faced barriers to treatment for HCV infection, but new oral DAAs have excellent cure rates and improved tolerability, thus reducing barriers for treatment
- A national strategy to combat HCV infection requires approaches to reaching and treating HMH adults.

About BHCHP
- Mission is to provide or assure access to the highest quality health care for all homeless men, women and children in the greater Boston area
- A community health center that provides care to over 11,000 individuals in the Boston area annually
- Over 60 locations in the greater Boston area
- Provides primary care and specialty services, including HIV, HCV, and substance use treatment using a patient centered medical home approach

Objectives
- To describe the treatment experience and outcomes of a cohort of HMH adults
- To determine whether HMH adults achieve sustained virologic response with interferon-free therapies for hepatitis C.

Methods
- Study Population: BHCHP patients
- ≥18 years old
- Chronic HCV infection (HCV antibody positive with detectable serum HCV RNA)
- Enrolled in HCV treatment with oral DAAs between February 2014 and August 2015
- Completed follow up by December 2015.

Data Collection
- Retrospectively reviewed clinical and laboratory data of this cohort using the electronic health record and manual chart review.
- Data abstracted included patient demographics, characteristics of HCV and fibrosis, and treatment outcomes, prior HCV treatment, comorbidity conditions, and health services utilization.

Statistical Analysis
- Primary outcome was SVR12 (undetectable HCV RNA≤15 IU/mL, 12 weeks after treatment completion).
- Characterized the sample with respect to the primary outcome.
- Compared characteristics of the two subsets of respondents using t-tests for continuous variables and chi-squared or Fisher’s exact tests for categorical variables.
- An alpha level of 0.05 was assumed to indicate statistical significance.

Results
- 64 consecutive individuals who completed DAA therapy were included.
- 77% were male (mean age 55), 60% were non-Caucasian
- Housing status: 45% in housing with no support services, 23% in transitional housing/residential treatment program, 14% in supportive housing, 8% in shelter, 8% in doubled up housing
- The majority had a history of substance use (92%)
- 46% were HIV-coinfected with 93% virologic suppression
- Genotype 1 (78%)
- Ledipasvir/sofosbuvir (LDV/SOF) was prescribed most often
- Adherence was excellent; only 7 patients reported 24 missed doses.
- 97% of the patients (62/64) achieved SVR12

Conclusions
- This initial cohort of HMH adults treated at a health care for the homeless program for HCV with DAAs demonstrated high medication adherence, high SVR rates, and strong engagement in care.
- Despite the often cited barriers to care that many HMH adults face including homelessness, unstable housing, and high prevalence of substance use disorders, clinical outcomes in this small cohort were similar to results of clinical trials and other larger general population cohort studies.
- Larger studies are needed to determine factors associated with treatment success in this population.
- Ultimately, the national strategy to combat HCV infection should include treatment of HMH adults in primary care settings and should also encourage development of best-practices for treating HCV in that population.

References