

Hepatitis C Virus Testing and Treatment: A Call to Action



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This summary reviews Kapadia SN, Zhang H, Gonzalez CJ, et al. Hepatitis C Treatment Initiation Among US Medicaid Enrollees. *JAMA Netw Open* 2023;6(8):e2327326.

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STRUCTURED ABSTRACT

Question: Hepatitis C virus (HCV) infection is curable with direct-acting antiviral (DAA) agents, but treatment is thought to be underutilized, especially among individuals with low socio-economic status. What are the variations in treatment access and initiation in Medicaid patients with newly diagnosed HCV?

Study Design: Retrospective cohort study using Medicaid claims data in patients age 18 to 64 years old with a new diagnosis of HCV in 2018 were included.

Setting: United States including Washington DC and Puerto Rico. Data from Rhode Island, Tennessee, and Kansas were omitted as they were missing race and ethnicity data for more than 50% of sampled individuals.

Patients: 87, 652 patients with 51% males, the majority (46%) aged 50 to 64 years old (40% aged 30 to 49 years old; 14% aged 18 to 29 years old), with 46% non-Hispanic White. 49% had a history of active injection drug use at diagnosis.

Outcome: The primary endpoint was HCV treatment initiation with DAAs within 6 months of diagnosis.

Data Analysis: Univariate analyses for all independent variables using X^2 testing. Multivariable logistic regression models were used to identify factors associated with treatment initiation.

Funding: Grants from National Institute of Diabetes, Digestive, and Kidney Diseases, National Institute on Drug Abuse, Patient-Centered Outcomes Research Institute (PCORI), Troup Fund of the Kaleida Health Foundation.

Results: Of the total patients, only 20% (n=17, 927) received DAAs within 6 month of initial HCV diagnosis. Female sex, younger age of 18-29 year old (odds ratio [OR]: 0.65; 95% confidence interval [CI]: 0.50-0.85), and active injection drug use (0.84; 95% CI: 0.75-0.94) were associate with decreased treatment rates (in regression analysis). In terms of ethnicity, Asian race (OR, 0.50; 95% CI, 0.40-0.64), American Indian or Alaska Native race (OR, 0.68; 95% CI, 0.55-0.84), and Hispanic ethnicity (OR, 0.81; 95% CI, 0.71-0.93) were associated with decreased treatment initiation (adjusted for state fixed effects).

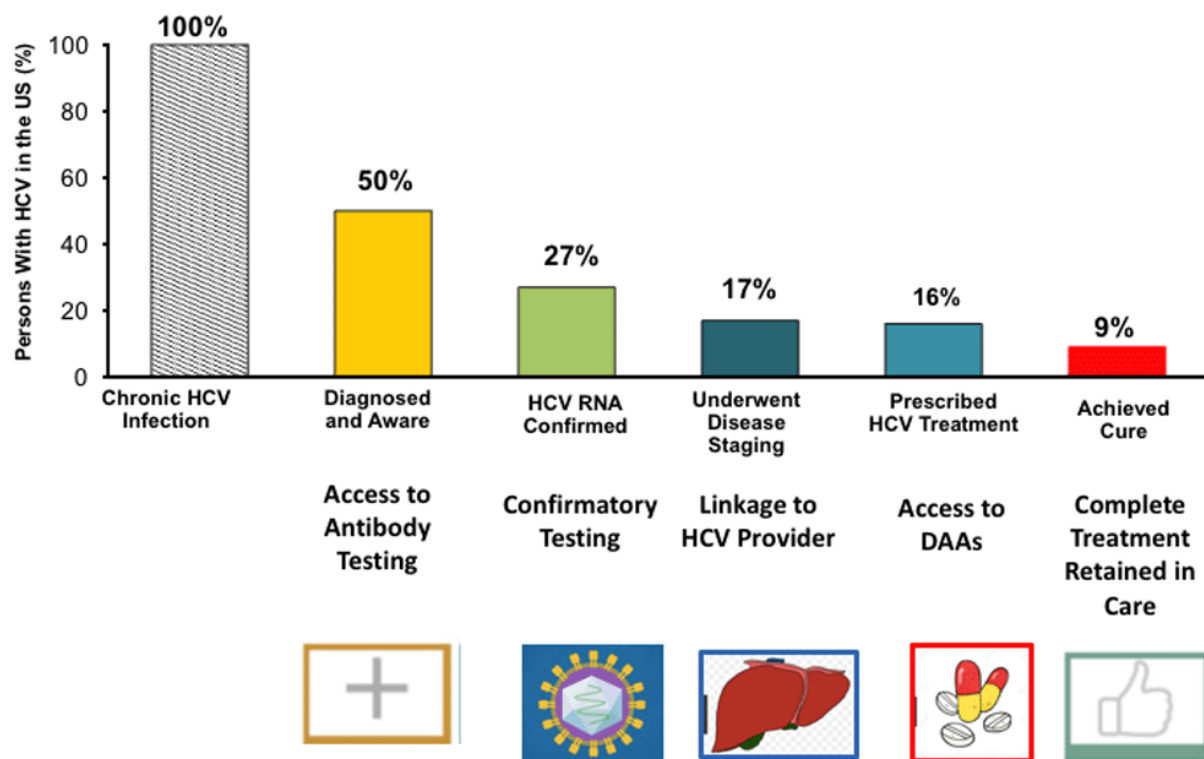


Figure 1. Hepatitis C virus (HCV) cascade of care.

Of the 3.5 million Americans estimated to be infected with HCV, 50% have undergone anti-HCV testing, the first step in the cascade of care. Next, confirmation testing for viremia (HCV RNA testing) is needed. Once infection is confirmed, linkage with a provider who is expert in HCV treatment is needed (primary care or specialist) and additional steps include testing for HCV genotype and staging of liver disease. Once treatment is prescribed, there are additional steps to get the medication approved and the patient to complete the treatment. As shown, there are multiple points along the cascade of care where interruption can occur, leading to decreased numbers of persons achieving HCV cure. Current HCV elimination efforts are focused on reducing gaps along the cascade of care. Figure and legend from reference [3](#).

COMMENTARY

Why Is this Important?

Introduced in 2014, DAA therapy has transformed the landscape of HCV management and treatment. Combination use of DAAs has resulted in highly effective interferon-free regimens with a current sustained virologic response (SVR) above 90%, regardless of genotype, severity of the liver disease, renal function, and whether or not the patient was previously treated.¹ Additionally, HCV treatment has decreased rates of HCV related cirrhosis, hepatocellular carcinoma, and liver transplantation.²

However, despite curability, HCV remains a public health problem, especially among younger populations (aged 20-39 years old) and driven largely by those who inject drugs. Of the 189 million people affected globally and more than 4 million in the US, most are expected to achieve HCV cure because of the remarkable effectiveness of DAA therapy.³ However, there exists dramatic gaps in the HCV care cascade (Figure 1) that allow those that are diagnosed with HCV to get to treatment access and care.

Specifically in patients with Medicaid, disparities in treatment can differ across states with some states requiring different durations of sobriety, need for advanced fibrosis, or specialist consultation in order to receive treatment.

Key Study Findings

Only 20% of patients with Medicaid started HCV treatment within 6 months of diagnosis. In particular, female sex, active intravenous drug use, younger age and certain minoritized racial and ethnic groups (Asian, Hispanic, or American Indian or Alaskan native) were associated with less treatment initiation.

Caution

The study is limited to only Medicaid patients so it is unclear whether this treatment underutilization applies to those with private insurance or the older Medicare population. Additionally, given the lack of granular data in the Medicaid claims database, the true disparity of HCV treatment may be greater as many patients with HCV may be undiagnosed or not linked to healthcare.

My Practice

In my hepatology practice, those who are referred for hepatitis C treatment are initially seen with baseline labs (comprehensive metabolic panel, complete blood count, international normalized ratio) and Hepatitis A and B serologies in addition to HIV if not previously checked. While genotype for hepatitis C is less important now given our pan genotypic regimens, most insurance companies require it and is important to know in the rare treatment failure. A fibrosis test is also used to risk stratify

for advanced fibrosis – in our clinic we use transient elastography. If the patient is fasting on the day of their visit, we will often obtain elastography same day and after labs are resultd, submit to insurance companies.

However, because we are specialists, we are often referred those with known Hepatitis C. Many locations in the US do not have easy access to GI or hepatology. Many primary care practices, including ours at the University of Chicago, will treat hepatitis C. Additionally, programs like Project ECHO (at centers throughout the United States) can provide telehealth education and case based curriculum in HCV to expand treatment access at community health centers and primary care practices in underserved neighborhoods.⁴ The American Association for Liver Disease and the Infectious Disease Society of America have produced an excellent resource for HCV management: www.hcvguidelines.org, which provides updated guidance about appropriate diagnosis and treatment, too.

For Future Research

Exploring whether similar disparities in treatment initiation are seen in those with private insurance and the Medicare population will be important. Additionally, interventions in the critical points in the HCV care cascade as described above are needed to increase not only treatment initiation but sustained viral rates and cure.

Conflict of Interest

Dr. Paul has no relevant conflicts of interest.

The authors of this article are active on social media. Tag them to discuss their work and this EBGI summary:

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