

# POTENTIAL HEALTH OUTCOME AND EFFICIENCY GAINS OF CONSOLIDATING THE HEPATITIS-C SCREENING AND LINKAGE TO CARE CASCADE IN SUBSTANCE ABUSE PROGRAMS

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## **Background:**

Substance abuse (SA) programs are an important care setting for vulnerable populations at high risk for hepatitis C virus (HCV) infection. HCV diagnoses in the injection drug user population account for half of new HCV cases annually. Disease management guidelines emphasize the importance of HCV screening and linkage to care (SLTC) for these patients. We aimed to determine how an HCV-susceptible population moves through the HCV SLTC cascade in SA programs and identify opportunities to reduce the number of patients who are lost to follow-up.

## **Methods:**

A Markov model simulated a cohort through the HCV SLTC cascade. Two scenarios were explored: Baseline, where each step in the SLTC cascade required a separate visit and all infected individuals are referred to a specialist, and Consolidated, in which antibody testing, RNA testing, fibrosis staging, and genotype testing were accomplished in a single visit, with an optional specialist visit. Later steps (prescribing treatment, drug testing, prior authorization, and obtaining prescription) were identical in both scenarios. Model parameters were sourced from the published literature.

## **Results:**

In Baseline, 27.5% of all patients are lost to follow-up, compared to 6.5% in Consolidated. In Baseline, 3.7% of antibody-positive patients initiate treatment, rising to 27.6% in the more efficient Consolidated process. Total screening costs per patient treated are \$1,959 in Consolidated, one quarter of the \$7,770 in Baseline. Additionally, it takes nine weeks for 90% of patients to initiate treatment in Consolidated, versus 26 weeks in Baseline.

## **Conclusions:**

Integrating multiple steps in the HCV SLTC cascade increases both efficiency and the number of patients treated while decreasing per patient screening costs. Requiring three separate visits for antibody, RNA, and genotype testing with fibrosis staging increases time to initiation of treatment. SA programs could significantly improve their identification and retention of HCV patients through reflex testing.

## **Disclosure of Interest:**

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