

EVALUATION OF A NOVEL REFLEXIVE LABORATORY BUNDLE COMBINING SCREENING AND WORKUP IN A HEPATITIS C ELIMINATION PROGRAM

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Background

Reaching World Health Organization hepatitis C (HCV) elimination targets requires diagnosis and treatment of people who use drugs (PWUD) with direct acting antivirals (DAAs). PWUD experience challenges engaging in HCV treatment, including needing multiple provider and laboratory appointments. Removal of steps in the care cascade may improve progression to cure. Novel laboratory testing algorithms are needed to streamline HCV diagnosis and pre-treatment workup prior to treatment.

Methods

We implemented an integrated, multi-faceted opt-out HCV screening and linkage-to-care program in two healthcare for the homeless clinics and a medically supported withdrawal centre. Front-line staff initiated a single-order reflex laboratory bundle combining screening, confirmation, and pre-treatment laboratory workup from a single blood draw. All patients received HCV antibody reflexed to RNA, HIV antigen/antibody, and hepatitis B surface antigen. Those with positive antibodies automatically reflexed to complete metabolic panel, platelets, and hepatitis A/B serologies. Multiple logistic regression models identified patient characteristics associated with HCV care cascade progression, including screening with the reflexive laboratory bundle vs stepwise screening, race/ethnicity, gender, site of screening, substance use disorder diagnosis, and housing status. Cox proportional hazards models assessed time to initiation (TTI) of DAAs.

Results

Of 11,035 clients engaged in services between May 2017 and March 2020, 3,607 (33.3%) were screened and 1,020 (9.2%) were HCV PCR positive. Of those with positive RNA, 712 (69.8%) initiated treatment; 670 (65.7%) completed treatment; and 407 (39.9%) achieved intention to treat (ITT) SVR 12. There were 8 treatment failures and 6 reinfections. In the unadjusted multinomial model, the HCV screening bundle intervention was associated with increased progression across the care cascade, and in the survival analysis, decreased time to initiation (TTI).

Conclusions

Our reflexive lab bundle and referral pathways improved treatment initiation, TTI, and movement across the cascade. Adopting this bundle may enhance HCV elimination efforts in hard-to-reach populations.

Disclosure of Interest Statement:

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