Hepatitis C management at federally qualified health centers proves cost-effective

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New research from Boston Medical Center shows that routine Hepatitis C (HCV) testing at federally qualified health centers (FQHC) improves diagnosis rates and health outcomes for people with HCV infections in

the United States, and is cost-effective. The formerly recommended targeted testing approach was shown to provide worse outcomes at a higher cost when compared to routine testing.

Published in the *American Journal of Medicine,* results show that these health care facilities can provide opportunities to enhance HCV testing and treatment, where care is typically provided to an underserved and diverse patient population with a high proportion of both injection drug use and HCV. This comes at a time when there has been an increase in HCV infections due to the opioid epidemic, and as recent data show that the United States is not on the list of high-income nations expected to achieve the World Health Organization's goal of eliminating HCV by 2030.

"Routine testing at federally qualified health centers is shown to provide better health outcomes and reduced financial burden compared to targeted testing," said Sabrina Assoumou, MD, MPH, an infectious diseases physician at Boston Medical Center and assistant professor of medicine at Boston University School of Medicine. "Federally qualified health centers can serve as venues to enhance testing and treatment, reducing the impact of HCV in the country."

Counselor-initiated routine rapid-testing with follow-up RNA testing identified 75 percent of cases at the FQHC compared to only seven percent identified by risk-based targeted testing by a clinician. By having a dedicated counselor initiate and perform testing, there was an increase in the percentage of cases identified by 41 percent compared to alternative approaches where clinicians were offering testing. In addition, targeted testing missed patients with no identified substance use. For example, risk-based laboratory-based targeted testing by a clinician only identified seven percent of HCV infections in the first month of the intervention whereas clinician-initiated phlebotomist-performed routine laboratory-based testing identified 25 percent of

infections.

The Centers for Disease Control and Prevention (CDC) and the US Preventive Services Task Force (USPSTF) have recently updated recommendations to include one-time HCV testing screening for adults 18 years and older. This new research provides data on the cost-effectiveness of alternative testing approaches to expand testing and treatment in high prevalence clinical settings, specifically evaluating the relative costs and comparative outcomes of various implementation models for HCV testing.

Using simulation modeling, routine rapid HCV testing is shown to be cost-effective when compared to risk-based laboratory testing at US FQHC. Compared to risk-based laboratory testing, routine rapid testing performed by a counselor identified 68 percent more cases in the first month and resulted in a 22 percent reduction in liver deaths among patients with liver cirrhosis. This intensive approach to testing in FQHCs shifts the timing of cure to early disease stage, preventing liver-related morbidity and reducing HCV-attributable deaths, even when there is substantial ongoing hepatitis C testing at venues elsewhere.

Individual-level data was used from 57 FQHCs to model 9 strategies, including permutations of HCV antibody testing modality, person initiating testing and testing approach. The outcomes included life expectancy, quality adjusted life years (QALY), hepatitis C cases identified, treated and cured, and incremental cost-effectiveness ratios (ICERs).

More information: Sabrina A. Assoumou et al, Hepatitis C Management at Federally Qualified Health Centers during the Opioid Epidemic: A Cost-Effectiveness Study, *The American Journal of Medicine* (2020). DOI: 10.1016/j.amjmed.2020.05.029

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