

Expanding Hepatitis C testing to all adults is cost-effective and improves outcomes

February 16 2018



Electron micrographs of hepatitis C virus purified from cell culture. Scale bar is 50 nanometers. Credit: Center for the Study of Hepatitis C, The Rockefeller University.

According to a new study, screening all adults for hepatitis C (HCV) is a cost-effective way to improve clinical outcomes of HCV and identify more infected people compared to current recommendations. Using a simulation model, researchers from Boston Medical Center,

Massachusetts General Hospital (MGH) and Stanford University found that this expanded screening would increase life expectancy and quality of life while remaining cost-effective.

The Centers for Disease Control and Prevention (CDC) currently recommends HCV testing for people born between 1945 and 1965, the highest risk population in the U.S. However, recent trends have shown a higher incidence rate of HCV among [young people](#). To address this gap in testing, the researchers created simulations to estimate the effectiveness of HCV testing strategies among different age groups. They compared effects of the current testing recommendations; of testing people over 40 years old or over 30 years old, and of testing all adults over 18 years old. All strategies included the current recommendations for targeted testing of high-risk individuals, such as people who inject drugs.

The study found that screening all adults for would identify more than 250,000 additional people with HCV, increase cure rates from 41 to 61 percent, and reduce [death rates](#) for HCV-attributable diseases more than 20 percent, compared with current recommendations.

"When we expanded testing, the results were compelling," says Joshua Barocas, MD, lead author on the study, an infectious [disease](#) physician at MGH and an instructor in medicine at Harvard Medical School.

"Changing the current recommendations could have a major public health impact, improving the quality of life for young people with HCV, and reducing death rates."

The research team used data from national databases, clinical trials, and observational cohorts to inform their simulation models, which took into account the same demographics and HCV epidemiology of the U.S. population.

All of the age-based strategies decreased costs related to managing chronic HCV and advanced liver disease, but the strategy of testing all adults was most effective. Even in a simulated scenario that required twice as much testing among uninfected people to identify the same number of HCV cases, the testing-all-adults strategy remained cost-effective.

"Testing all adults would lead to earlier diagnosis and treatment for many people, which would help to prevent cirrhosis and other long-term complications," says Joshua Salomon, PhD, co-senior author of the study and professor of medicine at Stanford University. "Overall, when you consider both the better health outcomes and the reduced costs of managing long-term liver disease, expanded testing offers excellent value for money."

Researchers say these findings should be considered by the CDC for future recommendations on HCV testing.

"Due in part to the opioid epidemic and the increase in injection drug use, the country has seen an increase in cases of HCV among young people," says Benjamin Linas, MD, co-senior author of the study and infectious disease physician at BMC and an associate professor of medicine at Boston University School of Medicine. "The CDC could address this public health concern by recommending all adults receive a one-time HCV [test](#)."

The study was published online in *Clinical Infectious Diseases*.

Provided by Boston Medical Center

Citation: Expanding Hepatitis C testing to all adults is cost-effective and improves outcomes (2018, February 16) retrieved 3 May 2024 from

<https://medicalxpress.com/news/2018-02-hepatitis-adults-cost-effective-outcomes.html>

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