Newer tests could cut hep C diagnosis steps in half

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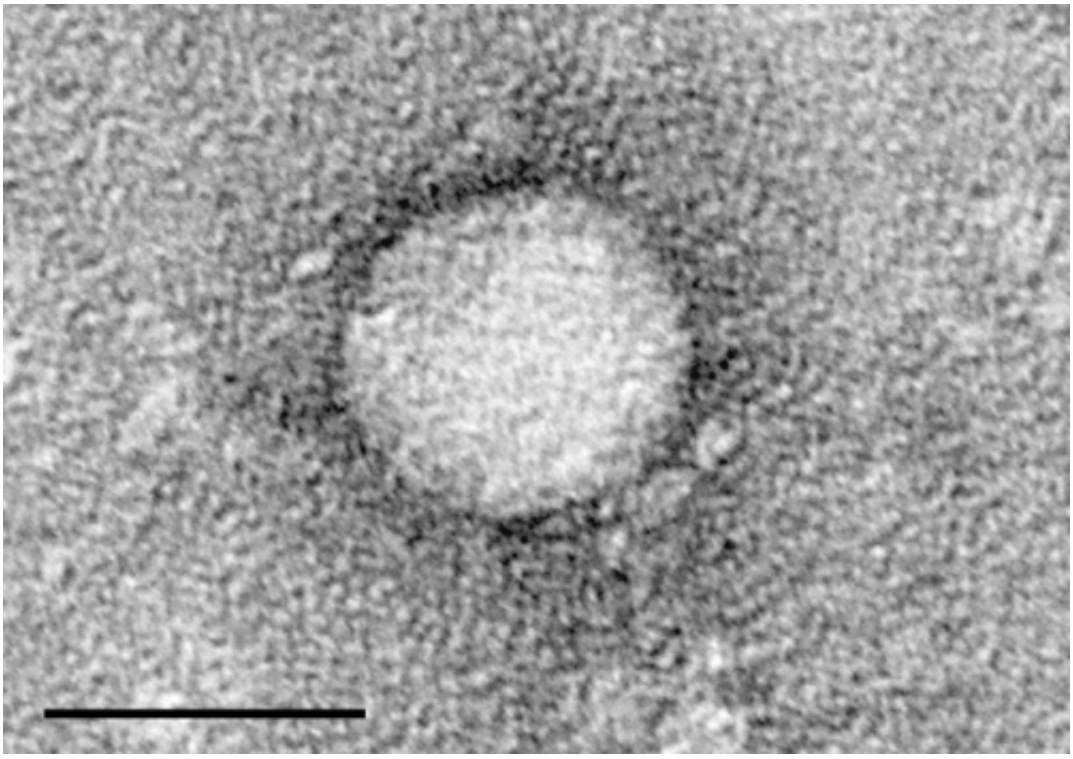

Electron micrographs of hepatitis C virus purified from cell culture. Scale bar is 50 nanometers. Credit: Center for the Study of Hepatitis C, The Rockefeller University.

Data suggest that several commercially available tests for hepatitis C virus core antigen (HCVcAg) are highly sensitive and specific and could transform the current two-test screening process for HCV into a single test. A single-process diagnostic for chronic HCV infection could

streamline the cascade of care in low- and middle-income countries where HCV is prevalent, but patients are often lost to follow-up. The systematic evidence review, published in *Annals of Internal Medicine*, will inform an upcoming World Health Organization (WHO) guideline on HCV screening.

Up to 150 million people are affected with HCV, with about 75 percent of those cases occurring in low-and middle-income countries. To make diagnosis of HCV cost-effective, a low-cost screening test for HCV antibodies is followed by a more expensive nucleic acid test (NAT) in patients who test positive for the HCV antibodies. This two-step process presents a major obstacle to diagnosis and treatment because a significant proportion of patients either do not undergo testing or do not follow up after an initial positive screen. This issue needs to be addressed to achieve the ambitious HCV elimination strategy proposed by WHO.

To evaluate the accuracy of HCVcAg tests for diagnosing active HCV infection among adults and children, researchers reviewed 44 published studies that compared any of 5 commercially-available HCVcAg tests with a NAT reference standard. The data showed that several HCVcAg assays are highly sensitive and specific and could feasibly replace NAT for HCV detection. The authors suggest that HCVcAg should be explored for point-of-care testing so that more patients could be diagnosed and treated.

More information: *Annals of Internal Medicine*, http://www.annals.org/article.aspx?doi=10.7326/M16-0065

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