Pay now or pay more later: Treating hepatitis C
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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.

The price of curing hepatitis C in the long term is much cheaper than the ongoing expense of older therapies or delayed treatments, including liver transplants, according to a group of studies published this month in a special edition of the American Journal of Managed Care.

"Many policymakers have focused on what they see as a high price for three months of therapy, but the value of curing hepatitis C lasts a lifetime," said Darius Lakdawalla, Quintiles Professor of Pharmaceutical Development and Regulatory Innovation at the USC Schaeffer Center for Health Policy and Economics.

An estimated 3.5 million Americans suffer from hepatitis C, and half have not yet been diagnosed, according to federal health statistics. Most hepatitis C patients are baby boomers who became infected through blood transfusions before the 1980s, when new federal regulations for the blood supply went into effect. A record number of Americans - 19,659 died of hepatitis C in 2014, the Centers for Disease Control and Prevention reported last week.

According to the researchers who led the studies, only 13 percent to 36 percent of U.S. patients who have chronic hepatitis C (HCV) have been treated and even fewer have completed the treatment regimen that would wipe out their disease.

The economic studies were funded by the Illinois-based pharmaceutical company AbbVie Inc., and were conducted by teams of national researchers, which included Lakdawalla. The studies showed that financing treatment of hepatitis C would not only save lives but ease future costs for Medicare and reduce the need for liver transplants.

The researchers also found that an expansion of screenings and treatment to all hepatitis C patients, regardless of what stage of the disease they are in, would generate more than $800 billion in benefits - due largely to improved health and longer lives - over 20 years.

For these studies, the economists and clinicians examined key issues affecting coverage and patient access to the cures:

- In one study, researchers assessed the problem of relying on private insurers to treat hepatitis C patients, when much of the benefit of curing the disease ends up accruing to Medicare and other private insurers that a patient might switch to in the future. Medicare may end up footing the bill for expensive complications if fewer patients are successfully treated at earlier disease stages.

Lakdawalla and a team of researchers found that if private insurers chose to expand their coverage and treat patients at earlier stages of their disease, the move would save Medicare $4 billion to $11 billion in 20 years. Even though the private insurers
would save $10 billion to $14 billion in 20 years, their short-run costs would be substantial.

Authors: Gigi A. Moreno, Karen Mulligan, Caroline Huber and Mark T. Linthicum, all of Precision Health Economics; David Dreyfus of Arete Analytics; Timothy, Steven E. Marx, and Yuri Sanchez Gonzalez of AbbVie Inc.; Ron Brookmeyer of University of California at Los Angeles and Lakdawalla.

- For another study, the researchers examined the costs and benefits of treating hepatitis C patients before they advance into more severe stages of the disease and require a liver transplant. They found that treating hepatitis C patients earlier would avoid liver transplants and thus spare scarce donor livers for use in patients with other liver diseases.

"Systematic HCV screening and treatment could spare 10,490 liver transplants to HCV-infected patients from 2015 to 2035," wrote the research team led by Harvard Medical School associate professor Anupam Jena, who has worked with USC Schaeffer Center on prior studies. "An estimated 7,321 transplants would accrue to patients with end-stage liver disease without HCV."

Authors: Anupam B. Jena of Harvard Medical School; Warren Stevens of Precision Health Economics; Yuri Sanchez Gonzalez, Marx and Juday, all of AbbVie Inc.; Lakdawalla; and Tomas J. Philipson of University of Chicago.

- In a third study, researchers calculated the value of expanding hepatitis C screening and treatment in the United States. If all individuals were screened and all who were infected were treated at early stages, the social value would reach $824 billion, they estimated.

Authors: Linthicum, Mulligan, and Moreno, all of Precision Health Economics; Dreyfus of Arete Analytics; Sanchez Gonzalez, Juday and Marx, all of AbbVie Inc.; Lakdawalla; Brian R. Edlin of Cornell University and the National Development and Research Institutes; and Brookmeyer.

Lastly, in a commentary, Lakdawalla said that the typical insurance arrangement in which patients share the burden of paying for their treatment will not work. It would "expose patients with HCV to potentially significant financial burdens at a time when they are least able to cope with them," he wrote.

Lakdawalla noted that private insurers currently lack incentives to invest in the latest treatments as patients may change insurers multiple times over the course of their lives.

"Screening the population for hepatitis-C and treating patients early in their disease course poses upfront costs but generates substantial long-term benefits to patients, private insurers, and Medicare," Lakdawalla said. "Policymakers must determine how to encourage private insurers to undertake these short-term costs in the service of substantial long-term benefits. Innovative policies that allow private insurers to harvest the savings they create - even when they accrue to other insurers down the road - may represent a critical strategy for help society unlock the value of cures for hepatitis C and other diseases."

• Precision Health Economics is a health economics research firm established by Lakdawalla; Dana Goldman, director and distinguished professor of the USC Schaeffer Center; and Tomas Philipson of the University of Chicago. It is currently a part of Precision for Value.

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