PROJECT INFORMATION

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Evaluating the Safety of Direct-Acting Antivirals for Treating Hepatitis C

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Organization

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What was the research about?

Hepatitis C is a virus that damages the liver. Previously, patients took medicines called antivirals to treat the health problem. These medicines took six months to a year to work and were not always effective. A new type of medicine to treat hepatitis C, called direct-acting antivirals, or DAAs, takes only two to three months for treatment and has higher success rates. But some research has suggested that DAAs might have worse adverse events, like liver failure or stroke, than previously thought.

In this study, the research team looked at health records for patients with hepatitis C to see if patients who started DAAs had more adverse events compared with patients who didn't receive—or had not yet received—DAAs.

What were the results?

DAAs weren't linked with patients having more adverse events. Overall, compared with patients who hadn't received DAAs, patients who received DAAs had lower rates of

- Death
- Reduced liver function
- Acute-on-chronic liver event, a type of liver failure
- Arrhythmia, or when the heart beats too slow or fast or with an irregular pattern

- Multiple organ failure
- Hospital or emergency room visits

The rates of heart attack, stroke, kidney failure, cancer, and a return of previously controlled hepatitis C did not differ between those who received DAAs and those who did not.

Who was in the study?

The study included health records from 33,808 patients diagnosed with hepatitis C. Of these, 55 percent were white, 19 percent were black, 5 percent were Asian or Pacific Islander, 1 percent were American Indian or Alaska Native, and 20 percent were other or unknown races. In addition, 20 percent were age 65 or older, and 61 percent were men. All received care at one of three healthcare systems in California and Florida.

What did the research team do?

The research team reviewed patient health records collected between January 1, 2012, and December 31, 2017. The team looked at whether patients who received DAAs had higher rates of adverse events within six months than those who had not received DAAs.

What were the limits of the study?

Doctors were more likely to prescribe DAAs to patients without multiple health problems, which could explain the lower rates of adverse events among those who received DAAs.

Future research could explore whether DAAs have different results for patients of different ages, genders, or with other health problems.

How can people use the results?

Doctors and patients can use these results when considering treatment for hepatitis C.

*To learn more about this project, visit
www.pcori.org/McGlynn264.*

The research reported in this results summary was conducted using PCORnet®, the National Patient-Centered Clinical Research Network. PCORnet® is intended to improve the nation's capacity to conduct health research, particularly comparative effectiveness research (CER), efficiently by creating a large, highly representative network for conducting clinical outcomes research. PCORnet® has been developed with funding from the Patient-Centered Outcomes Research Institute® (PCORI®).