Date: Location: Circulation (DMA): Type (Frequency): Page: Section: Monday, May 01, 2017 PHILADELPHIA, PA 263,142 (4) Newspaper (D) A1,A4 Main University of Pennsylvania

## Infected donor kidneys recover

Study: Once discarded organs may be viable.

By Marie McCullough

STAFF WRITER

It was a daring experiment aimed at expanding the supply of donor organs: Transplant kidneys infected with hepatitis C into uninfected patients, then give them a powerful new drug to banish the virus.

The strategy worked flawlessly in separate pilot studies at the <u>University of Pennsylvania</u> and Johns Hopkins University, researchers reported Sunday at the American Transplant Congress in Chicago.

The insidious virus was eradicated in all the kidney transplant recipients — 10 each at Penn and Hopkins — with a 12-week course of Zepatier. The maker, Merck, donated its \$55,000 drug.

"I'm really excited by these results," said Penn kidney transplant specialist Peter P. Reese, who co-led the trailblazing effort with Penn liver transplant specialist David S. Goldberg. "My life's mission is to help people get more transplants, be-

See **HEPATITIS C** on A4 cause there's such a shortage."

At Hopkins, Niraj Desai, director of the kidney transplant program, echoed, "This has the potential to enable 500 to 1,000 more people to get kidney transplants, just based on how many organs are being discarded now. So it's very exciting."

Studies using infected kidneys are only the beginning. Penn and the University of Massachusetts are preparing to launch transplant trials of hep C-infected hearts followed by Zepatier treatment, while Hopkins intends a similar study of infected livers.

Normally an organ infected with the virus would be offered only to transplant patients who already have the disease — or it would be thrown away. Experts say the lost opportunity of these donor organs has been magnified by the opioid epidem-

ic; many young drug users who die of overdoses have hep C, but otherwise their organs are strong.

Meanwhile, more than 99,000 people are on the national kidney waiting list. Each year, about 17,000 of them get a transplant — and 4 percent die waiting, despite buying time with dialysis.

The new hep C drugs, with cure rates of 95 percent or more, could make a dent in those statistics.

Irma Hendricks, the first Penn patient, said the decision to join the trial was a "no brainer." When she considered the option — all candidates went through an intensive informed consent process — the 66-year-old East Stroudsburg resident had been on hemodialysis for her failing kidneys for six months, and had a projected five-year wait for a transplant.

"I went to a dialysis center three days a week. It gave me constant headaches and fatigue," she said. "I felt, 'What do I have to lose?' I would rather deal with hep C than dialysis."

The virus showed up in her blood the day after her June transplant. With just a week of treatment, however, Zepatier wiped it out. Now feeling rejuvenated, Hendricks walks a couple miles a day and recently spent several days in Washington — undaunted by the burden of mechanical kidney cleansing.

Another Penn patient, Kiran Shelat, 63, of Yardley, is free of nightly peritoneal dialysis at his home and has gone back to work as a civil engineer. "I feel as good as I felt maybe a decade ago," he said. "I have lots of energy, I'm sleeping better, and my outlook on life has definitely improved."

Experts agree that the results

from Penn, published online Sunday in the New England Journal of Medicine, and from Hopkins need to be bolstered by larger studies.

"These studies are relatively limited. But it's certainly encouraging and there's no reason not to pursue it," said David Klassen, chief medical officer at the United Network for Organ Sharing, the nonprofit that manages the nation's transplant system. "I think it's a real step in the right direction."

Penn is now putting together a multi-center consortium to conduct a larger kidney study.

"We're also talking to insurance companies to see if they would pay for hep C treatment in the setting of transplants," said Reese, the study leader. "But even if they do, we think it should happen with extra oversight. We don't think this should be a standard of care yet."

Costs could be a barrier. The most expensive newer drug, Gilead Sciences' Harvoni, costs \$94,000 for a course. Hep C treatment would be on top of the costs of a transplant and the powerful drugs necessary to prevent organ rejection.

Then again, a year of dialysis costs about \$75,000, and market analysts anticipate hep C drug prices will fall as more drugs are approved and competition continues to grow.

Hopkins' Desai also speculated that transplant patients could be cured with far fewer than 12 weeks of treatment.

"That's our next step," he said.
"Testing shorter treatment to cut the cost."

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**Peter Reese,** kidney transplant specialist, a study co-leader.



**David S. Goldberg,** a study co-leader, liver transplant specialist.



Irma Hendricks, with granddaughter Stephanie, was the first patient in a <u>University of</u> <u>Pennsylvania</u> trial of transplanted hepatitis C infected kidneys.