

# Expanding the Possibilities

*First KPD transplants performed as result of national pilot program*



Expanding the possibilities with KPD. ABOVE (TOP): In St. Louis at Barnes–Jewish Hospital are (from left) transplant surgeon **Jason Wellen, M.D.**, with kidney recipient **Ken Crowder** and his willing but incompatible donor, fiancée **Rebecca Burkes**. (BOTTOM): Kidney recipient **Kathy Niedzwiecki** (left) and her willing but incompatible donor, sister-in-law **Catherine Richard**. OPPOSITE PAGE: In Lebanon, N.H., at Dartmouth–Hitchcock Medical Center, **David A. Axelrod, M.D., M.B.A.**, performed both the donor and recipient surgeries.

In St. Louis, Ken Crowder had spent more than a year on dialysis while awaiting a deceased donor kidney transplant; he might continue to wait much longer.

He had a willing potential living donor in his fiancée, Rebecca Burkes. Burkes, a dialysis nurse, was familiar with the challenges faced by many who remain on long-term dialysis. But their blood types weren't a match, so she couldn't donate to him.

In Pelham, N.H., 1,200 miles away, Kathy Niedzwiecki, born with only one kidney, was rapidly losing function in that kidney due to a congenital condition. Although she had yet to begin dialysis, her immune system was highly sensitized, and she faced the prospect of a long wait for a compatible deceased donor kidney.

Her sister-in-law, Catherine Richard, readily volunteered as her living donor, but she had incompatible antigens that would prevent a successful transplant.

As with hundreds of other living donors and candidates, kidney paired donation (KPD) offered those four individuals—the two candidates and their two willing but incompatible donors—the opportunity for transplantation that otherwise may not have happened.

Getting there was a long and carefully thought-out process.

## KPD PILOT PROGRAM BEGINNINGS

The OPTN/UNOS kidney transplantation committee began discussing kidney paired donation as early as 2004. The committee formed a KPD work group, which developed a concept for the design and operation of a national pilot program. (For a description of the pilot program's beginnings and how it operates, see "Getting It Right," March–April 2010 *Update*, p. 24.)

Four "coordinating centers," representing 77 transplant programs nationwide, enlisted in the program's first phase. Using data they submitted on candidates and potential donors, UNOS conducted the first national match run in October 2010.

Seven potential matches were generated. Subsequent testing eliminated all the potential combinations—except for the matches between candidate Ken Crowder, his fiancée Rebecca Burkes, candidate Kathy Niedzwiecki and her sister-in-law Catherine Richard.

Crowder's fiancée Burkes was a match for Niedzwiecki, and Niedzwiecki's sister-in-law Richard was a match for Crowder.

Johns Hopkins Hospital served as the coordinating center for Crowder and Burkes, the New England Program for Kidney Exchange for Richard and Niedzwiecki.

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“We’re proud to be able to coordinate kidney paired donation for the first time,” said OPTN/UNOS president Charles Alexander, RN, M.S.N., M.B.A.

“The goal of the pilot project is to see whether combining the data of multiple centers and networks will generate successful matches that may not be found through one individual organization.” The fact that these transplants occurred from the first match run,” he added, “suggests this will be true.

“This potential for additional matches, though,” Alexander said, “also means increased responsibility for everyone involved.

“We must make sure all precautions for safety have been taken,” he emphasized, “and we also must ensure that living donors are well informed of the inherent risks of the procedure.”

#### THE LOGISTICS OF DISTANCE

The donor recovery and transplant operations all took place Dec. 6. Crowder received a transplant at Barnes–Jewish Hospital in St. Louis (where his fiancée’s donation surgery took place) and Niedzwiecki received her transplant at Dartmouth–Hitchcock Medical Center in Lebanon, N.H. (where her sister-in-law’s donation operation took place).

The kidneys were preserved for transportation by the New England Organ Bank and Mid-America Transplant Services, and the nonprofit Angel Flight NE provided air transportation to and from Dartmouth–Hitchcock. (Barnes–Jewish used a charter service.)

“We are not only very excited, but more importantly honored to be part of this historic event,” said Larry Camerlin, president of Angel Flight NE. “By participating in this type of program, it speaks to our organization’s mission of bringing journeys of healing and hope to those in need.”

Surendra Shenoy, M.D., Ph.D., and Jason Wellen, M.D., performed the donor and recipient surgeries at Barnes–Jewish.

“Paired kidney exchange programs have allowed for a significant increase in the number of patients that receive a living kidney transplant, therefore freeing up additional deceased donor kidneys for the 80,000 plus people on the national wait list,” said Dr. Wellen, surgical director of the Washington University/Barnes–Jewish kidney and kidney/pancreas transplant program.

“A nationally run paired exchange program,” he added, “will allow for many new donor/recipient matches to take place that would otherwise not have been available through smaller-run paired exchange programs.”

#### EXPANDING MATCH POSSIBILITIES

David A. Axelrod, M.D., M.B.A., section chief of transplantation surgery at Dartmouth–Hitchcock, performed both the donor and transplant operations at his center.

“We all realize that the shortage of donors is only getting worse,” Dr. Axelrod said. “One solution is to expand the accessibility to live donor transplants. The innovation here,” he added, “is an increasing pool of potential donor-recipient pairs.

“Expanding the database of willing and able live donors, at the local, regional and national level through programs like this pilot, enables us to maximize access to this precious resource.”

Future match runs will be conducted every four to five weeks with information on potential living donors and candidates supplied by pilot program participants. Each transplant program will make individual medical decisions about accepting living donors or candidates and whether they qualify for matching through the pilot program.

In addition, each program must document that potential living donors have undergone a rigorous medical screening and have provided detailed informed consent for donation and for potential participation in a national match run.

As this article went to press, the donors and recipients are all doing well. Local and regional media outlets reported on the transplants several days afterward.

In an interview with the *Boston Globe*, Niedzwiecki said her transplant “means everything to me. “It means I get to see my kids grow, see my grandkids, and live my life.

“Without this and without this program, that would have been it.”

 For more information about the KPD pilot program, visit <http://optn.transplant.hrsa.gov/> (resources > kidney paired donation pilot program).

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