

Research & Innovation

January 2016

How Jefferson is Charting the Future of Organ Donation and Transplantation

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There was a time when organ transplants were seen as something best left to the pages of *Frankenstein*.

In the late 1940s and early 1950s, when surgeons around the world were experimenting to find the best method for performing transplants without loss of life, the general public struggled with the new idea of exchanging body parts. Even after the first successful kidney transplant was performed in 1954, many in the public held on to their perceptions of transplants as grotesque, unorthodox experiments; not as the lifesaving procedures many see them as today.

Over the years, organ transplantation has transformed medicine. With immunosuppressive drugs to improve donor-recipient matches and numerous other procedural enhancements, millions of lives have been saved by kidney, pancreas, liver, heart, lung, and intestine transplants. As Director of Jefferson's Transplant Institute, I couldn't be more excited about what's next.

While decades ago, transplantation was the last treatment option offered, today we've become more perceptive to individual patient's needs. We know that the longer a patient waits for a transplant, the more ill they'll become, making it less likely that they'll have a positive outcome. So, we've begun offering transplantation earlier in the dis-



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ease process; this has greatly improved a patient's chances of survival after the transplant. We've also developed a variety of new tools to treat major organ illnesses, other than full transplantation, so we no longer have to apply 'one-size fits all' treatment plans.

Take, for example, a patient who has liver cancer; there are several treatment options available other than full transplants. There's liver resection (removing part of the liver), robotic-assisted liver resection (a minimally invasive approach to remove lesions from the liver), local-regional treatments (radiology restricted to a particular area of the body), systemic chemotherapy (anti-cancer drugs that are injected

into a vein or given by mouth) and liver dialysis (MARS). Jefferson is the only hospital in the region that offers ex-situ liver resection with liver auto-transplant. During this procedure, we remove the entire liver from the body, remove the cancer from the liver, and then place a portion of the liver back into the patient's body. We offer all of these life-saving options. So, when a liver cancer patient walks into Jefferson's Transplant Institute, we aren't limited to just one treatment.

Finding a matching donor for our most critically ill patients is always a challenge. While more than 100 million people in the U.S. list themselves as organ donors – myself included –

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year-after-year the number of donors in our country remains relatively static, while the number of patients on the waiting list for a lifesaving organ transplant continues to increase.

Today, more than 120,000 patients in the U.S. are on the waiting list to receive a lifesaving organ transplant. Each year, more than 7,500 people – roughly 21 people per day – die before they are able to receive a transplant.

I'm proud to say Jefferson has the lowest mortality rate in the region for patients on the waiting list; we transplant approximately 90 percent of our listed patients every year; and we have one of the highest transplant survival rates in the nation. We're constantly innovating, creating new treatment options and working to ensure that when people come to Jefferson for a transplant, they can do so with confidence that they're not going to be left languishing on a waiting list; they have

a better chance at getting transplanted sooner, and they have a better chance of survival after that transplant has been completed.

At Jefferson's Transplant Institute, our patients are not numbers; we know all of them by first and last name; we know the names of their spouses and their children. It's this type of personalized care that led a generous patient like Robert Nicoletti to invest in living donor kidney transplantation at Jefferson. The Nicoletti family cited the compassionate care they received at Jefferson when Robert received a new kidney donated by his own daughter as the reason for their recent gifts to the living donor kidney transplant program.

Jefferson surgeons pioneered the first liver transplant in the region in 1984. Since then, we've performed thousands of lifesaving procedures for patients like Robert Nicoletti and oth-

ers who suffer from the most serious renal illnesses. Our focus now is on improving education: informing patients, families and friends about the importance of living donation and helping patients to identify potential donors.

In our new Nicoletti Family Living Donor Kidney Transplant Center, we will bring all of our multidisciplinary experts under one roof in a patient-centered care delivery model to improve quality of life for those who are awaiting transplants, and find willing, compatible donors sooner – thereby saving more lives. As we continue to grow, support from families like the Nicolettis and other generous benefactors like Suzanne and Jim Ksansnak, and Arthur and Gail Pasquarella, will be critical to helping Jefferson become the leading transplant program on the east coast – and it is a vision that we are determined to make a reality.



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