# Organ Recovery Centers Reduce Transplant Costs 37%

***Cheryl Clark, for HealthLeaders Media* , March 25, 2014**

## Organ procurement organizations take a streamlined approach to the transplant process, removing much of the inefficiency and cost out of the complex sequence of organ donation.

Pittsburgh's organ procurement organization (OPO) plans to revolutionize the life-saving transplant process in western Pennsylvania, making it faster cheaper, and safer for medical transplant teams and organ recipients.

Here's how it works: Staff members from the **Center for Organ Recovery and Education** will travel to any of 150 area hospitals where a donor has been declared brain-dead. If the family agrees, CORE workers will transport the body to a newly remodeled surgical facility northeast of the city. All the while, skilled teams will maintain the donor's heart rhythm so the organs remain viable for transplant.

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**Medicare Rules Make Offsite Organ Recovery Costly**

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The donor's organs will be removed in CORE's surgical suites rather than in the originating hospital where organ recovery from brain-dead donors competes with surgeries on living patients for expensive operating room time and resources.

CORE is the fourth organ procurement organization to take this streamlined approach to the transplant process in the U.S., a program it says removes much of the inefficiency and cost, as well as the hassle, out of the complex sequence of organ donation.

The Pittsburgh group joins **Donor Alliance** in Denver, which launched its procurement center in 2012; **Gift of Life** in Ann Arbor, which began leasing surgical space three years ago; and the oldest, **Mid-America Transplant Services** (MTS) of St. Louis, which built a special building to receive brain dead donors in 2001. In its 13 years, MTS says it has enabled transplant centers' surgeons to recover more than 1,000 organs.

"This is where the industry is going," says Joe Weber, CORE's chief financial officer. Adds Kurt Shutterly, CORE's COO, "It's better for the OPOs, better for the hospital, and better for the families." Just on cost alone, there's a huge advantage, he says. While a cardiothoracic workup costs $30,000 at a donor's hospital, "we should be able to do that for a fraction of that cost."

While the donor is kept breathing in CORE's intensive care units, surgical teams from any of the five nearby transplant hospitals will zoom in. Then, at a precise, pre-set time multiple surgeons in one of the facility's three surgical suites, will retrieve the organs. The surgeons will take them back to their respective transplant hospitals to be placed in waiting patients by other surgeons.

**Benefits**

Overall transplant costs are reduced because CORE can perform testing and other services more cheaply and rapidly than donor hospitals, which charge the OPO at higher rates for those services. And cold ischemic time—the time the organ is outside of its donor—is reduced, which studies suggest improves retention and viability for the recipient.

Another benefit: Surgeons and their teams don't have to spend hours waiting around for operating room time to recover those organs, nor do they have to travel long distances.

Finally, families are spared the prolonged wait, often at the bedside of the deceased patient, until the surgery begins. They will say their goodbyes and go home once the brain-dead donor's body leaves the hospital.

Operating a center that maintains a heart beat for a brain-dead donor is an expanded role for an organ procurement center, 58 of which are regionally certified by the Centers for Medicare & Medicaid Services to evaluate potential donors, discuss donation with family, run match lists, and arrange for recoveries. Many OPOs currently run such donor procurement centers, but only for cadaveric donation of tissue and bone, not for organ donation in a brain-dead donor.

According to officials for the four OPOs now operating separate recovery centers, the 54 other organ procurement organizations around the country still do it the old way for the nearly **23,000 organs** from deceased donors transplanted each year in the U.S.

That is, after an organ donor is declared brain dead and the United Network for Organ Sharing determines which patient should receive his or her organs, the surgeons fly in from their respective transplant hospitals and wait, often for hours.

"There can be huge delays in getting the donor workup," for various organ suitability, says Maria Majella Doyle, MD, a liver transplant surgeon at Barnes Jewish Hospital/Washington University in St. Louis, which is a participant in the Mid-America Transplant Services procurement center program. Tests on the donor include, cardiac catheterization, echocardiograms, bronchoscopies, and CT scans.

**Safer for Transplant Teams**

"You have to slip the donor recovery operation into some available time in the evening or night, which is convenient for all the recipient teams waiting for their respective organs," says Doyle.

"And then when the organs are all placed and the donor [OR] time is set, and all recipient teams are ready, some trauma comes in and takes precedence, and they can't do the recovery."

She places a high value on freeing up OR time. Once, after flying four hours to a small community hospital in rural Missouri to retrieve organs, Doyle had to spend nine hours in the doctor's lounge after the hospital received a trauma case that monopolized the facility's one operating room.

For surgeons like Doyle, another consideration is reduced personal risk. Some 30 members of surgical teams have been killed by crashes en route by car, plane, or helicopter to and from the brain-dead donor's hospital. In 2007 a **four-person transplant team and two pilots** from the University of Michigan Medical Center were killed as their plane attempted to take off from Milwaukee.

In an effort to inform other hospitals and OPOs about their success, Doyle wrote up the MTS experience just in liver transplants in a paper in the ***American Journal of Transplantation***.

**Cost Savings a 'Game Changer'**

Of 915 liver transplants performed at Barnes Jewish Hospital/Washington University from 2001 to 2011, she wrote, 93% of the organs are now recovered at the procurement center as opposed to the hospital. The cost of processing the donor after brain death is reduced 37% when the procurement center does the preparation rather than the donor hospital.

And travel time for Barnes Jewish/Washington University's surgeons went form eight hours per case down to 2.7.

Calculating the cost for processing of all brain-dead donors transported to the St. Louis facility costs 45% to 50% less than having those services performed at the donor hospital, says Diane Brockmeier, MTS' COO.

This is, Doyle says "a huge game changer for the field of transplantation. It amazes me that people still don't know about it."

Richard Pietroski, CEO of Michigan's OPO, says Gift of Life has moved 220 brain-dead donors to its Ann Arbor surgical center over the last three years, and is currently transferring 80% of its brain dead cases. The other 20% have organs recovered at the originating hospital, perhaps because the family members didn't agree or because the donor required a special kind of maintenance care.

"We know we can do it 20% to 25% more efficiently, cost-wise, by moving the donor out of the hospital," he says. And that reduces costs for the Medicare program, whose beneficiaries are often transplant patients. Family satisfaction has not declined either, he says, because "We can move them to surgery quicker, which enables the family, the medical examiner, and the funeral home to get the body back quicker."

Sue Dunn, CEO of Donor Alliance in Denver, says that problems securing operating room time to retrieve organs for her area transplant hospitals also led to her group purchasing and gutting a building just for that purpose in 2011. The facility has two "donor care" units, where brain-dead donors can be maintained until the surgeons arrive, and three 600 square foot operating rooms.

Dunn says that through the Donor Alliance center, surgeons from nearby transplant hospitals have recovered organs from 59 brain dead donors transported from 25 hospitals in the Denver area, all transported to the facility by critical care ambulance. The facility even has a family waiting room, which was included in the layout because of the concern families at the donor's hospital would refuse to let their loved one be transferred unless they could sit with them until the last minutes before surgery.

Brockmeier of MTS says the long history her organization has had with this program has convinced her that other OPOs should strongly consider similar initiatives.

"It's been an amazing journey for us," she says. We've identified something that met the needs of our community, we can respond promptly to our donor partners when they identify the deceased, and they're happy to have us leave and free up the facility for their next critically injured patient."

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