A life saving transplant put a firefighter back on the job

Round-the-clock expert attention, care and support kept Dale Shippam going until a new heart showed up

By Judy Gerstel

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01 Dr. Heather Ross, left, and Stella Kozuszko, Nurse Practitioner in the PMCC Heart Transplant Program, are constanly communicating about major and minor adjustments to a patient's care, sometimes minute by minute.

02 Just over a year after he received a heart transplant, Thunder Bay firefighter Dale Shippam was back on the job.

03 Dr. Ross also leads TestYourLimits expeditions for transplant patients, going to place such as Antarctica, Bhutan and the North Pole. The first Canadian trek took place in the Northwest Territories in July 2015.

Growing up, Dale Shippam always knew what his future was going to be.

He was going to be a firefighter.

But during six weeks in the Coronary Intensive Care Unit (CICU) at the Peter Munk Cardiac Centre (PMCC), the firefighter's future, any future, was in grave doubt.

"There were so many sirens outside," he recalls, "and I was lying in a bed, thinking, 'I'm never going to ride a fire truck again.'"

The best he could hope for, and it was a long shot, was to live.

If you'd told him at the time that he'd be riding the truck again, trekking in Bhutan, climbing in Nepal, skiing to the North Pole and the South Pole, he'd have thought he was hallucinating from all the drugs dripping into him.

Mr. Shippam had been a fit 47-year old firefighter in Thunder Bay.

"I was incredibly healthy," he says. "I ran the Boston Marathon. I never smoked. I controlled for risk factors."

There was no history of cardiovascular disease in his family.

But his body began to fail him. What was happening to all the energy and stamina that had fuelled this powerful six-foot athlete in his prime? He tired easily, breathed harder, felt weak.

His family doctor diagnosed heart failure.

"I had to get a pacemaker," Mr. Shippam explains. "Then a defibrillator. Every time they tried to control it, something else would happen."

Mr. Shippam was referred to the PMCC because of problems with the defibrillator. He was told he'd contracted a heart virus.

A few days later, transferring between units with his wife, Peggy, a former nurse, at his side, he suffered a cardiac arrest and was rushed to the CICU, where Dr. Heather Ross worked hard to keep him alive.

"Dale was critically ill," recalls Dr. Ross, Dr. Heather Ross, Cardiologist, Peter Munk Cardiac Centre, and Medical Director, Cardiac Transplant Program, Toronto General Hospital. "He had a very prolonged arrest, and we had to return circulation. We got it, we lost it; it was a real battle. Dale's body had tried to actively die through cardiac arrest," she says.

"At that stage, I was incredibly sick," Mr. Shippam says. "I was told I would never be able to leave the hospital without a heart transplant. I would either get a new heart or die waiting."

But new hearts are not easy to get. They can't be manufactured with 3-D printers. They can't be ordered from Amazon. And they can't be created whole from stem cells or other living tissues – at least, not yet; although, a short distance from Mr. Shippam's room were labs, where scientists were working to make that happen.

But in Mr. Shippam's room, it was the applied science of keeping a diseased heart beating that was happening, hour by hour, second by second, a race against the clock.

"We worked very hard to maintain what little heart function there was," explains veteran CICU nurse Stella Kozuszko, "constantly making adjustments, minor, minor little changes, minute by minute."

The heart, says Ms. Kozuszko, is responsible for what all the organs are doing – the kidneys, the lungs, the brain. A slight drop in urinary output or blood pressure needs to be attended to instantly. Monitoring fluids and devices is a priority.

"It's a fine line, at that point, in terms of monitoring," says Ms. Kozuszko, "because in seconds they could pass."

But there was a challenge for the highly trained, highly skilled nurses and doctors in the CICU beyond just keeping Mr. Shippam alive.

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"We had to get to the point where he was well enough and strong enough to have a transplant," explains Ms. Kozuszko.

As critically ill as he was, hovering between life and death, Mr. Shippam was aware of what was happening.

"They were so attentive round-the-clock," he recalls, "and friendly, on top of everything else."

He strongly believes, and tells everyone who will listen, that "it was because of the care I received in this hospital that I was able to hold on until a heart showed up."

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Mr. Shippam knew he was in danger of another cardiac arrest, a fatal one, at any moment. And he knew that having a heart show up was not a simple matter, even once he was on the transplant list.

"You have to be optimistic," he says, "but also realistic because there is a shortage of hearts in this country for transplants. It needs to be a certain body size and a special blood type. You have to be realistic that one may not show up in time."

And always, behind the waiting and the hoping and the holding on for another day, there was the terrible knowledge that his life could only be saved by the death of someone else.

"You never really know where you are on the list," he says. "You can spend a lot of time contemplating where you are on the list, but sometimes it's better not to. It's a very tough business, holding on every day, just waiting, knowing that if I got a cold or something went wrong, I'd be off the list," he says.

"They don't do that many heart transplants. It's still an event. And you see people passing away in the ICU while they're waiting."

Then, he says, when the heart does show up, "you don't always know if the heart's going to be good. It's very nerve-racking."

The business of transferring a beating heart from one body that has expired to another body that is on the brink is more than just a delicate operation – or, rather, two operations – with the added challenge of transportation in between. It's something of a miracle when it works.

And sometimes, it doesn't.

"People have false alarms," Mr. Shippam explains. "You're taken to the operating room, put under and can wake up with no new heart."

In Mr. Shippam's case, he woke up a week after the transplant, after being kept in a medical coma to allow the new heart and his other organs to adapt.

"I certainly realized right away that I had another heart, that it was changed, but it does take a while to sink in."

As with all transplant patients, Mr. Shippam was told nothing about the donor. "I think every transplant patient wonders about that, but it's probably better that you don't know," he says. "It's hard even after all this time to talk about it because there's a sad story at the other end."

Mr. Shippam started walking within a few day of waking from the coma, and he was walking long distances within a month. He got fit again. "I was getting very strong," he says.

A year after the transplant, he asked Dr. Ross whether there was any chance he could go back to firefighting.

"She didn't say no," he recalls. "She said, 'If the fire department okays it, you can go back,'" says Mr. Shippam.

"I knew I'd have to pass certain tests. I did a lot more fitness work, and a year after the transplant I went back to firefighting on the truck."

But his new heart took him far beyond the fires of Thunder Bay.

He joined his cardiologist, Dr. Ross, on her "TestYourLimits" expeditions for transplant patients.

The first trip was to Antarctica.

"That first one, I didn't know what would happen," he recalls. "But I quickly found that I could keep up with everybody."

Another expedition went to the North Pole.

"That was brutal," recalls Dr. Ross, "the worst journey in the world. But on all the trips we've done, Dale has been the strongest person on the trip. When we went to Bhutan, another trekker said about Dale, 'That man is a machine!'"

Dr. Ross adds, "He's also a very gentle soul."

The most recent journey was a whitewater canoeing expedition on the Nahanni River in the Northwest Territories.

"Five-foot standing waves, big water, big holes," says Dr. Ross, with evident relish.

"Dale and I, in a canoe together."