



University
Hospital
Foundation

The University of Alberta Hospital's Stroke Ambulance is revolutionizing the delivery of stroke care.

There's just one problem.

Without additional financial support from the community, the Stroke Ambulance Project will not last long enough to collect the data it needs to validate its place in stroke patient care.

**CAN WE COUNT ON YOU TO
HELP KEEP CANADA'S FIRST
STROKE AMBULANCE
ON THE ROAD?**



TO THE RESCUE

About 6,500 Albertans have a stroke every year, or roughly 18 every day.

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I knew that if Lukas didn't get help soon, our lives would be changed forever.

Lukas Jardine, 28, of Sherwood Park was one of them. His wife Celine was making breakfast when he stumbled into the kitchen.

The left side of his face had already begun to sag. His eye was drooping.

An acupuncturist and former lifeguard, Celine recognized the signs of a stroke immediately – and she was horrified. She asked Lukas to hold his hand in the air but he couldn't do it. He tried to speak but his words were just sounds that made no sense.

Immediately, Celine knew that she had to get help, and that if it didn't arrive soon enough, their lives could be changed dramatically forever.

Hours later, Lukas was resting in a bed at the University of Alberta Hospital, asking one of the nurses when he could go home.

STROKE AMBULANCE AT WORK

Within minutes of its arrival, Lukas was wheeled into the Stroke Ambulance for a CT scan. Seconds later, the images were sent to an on-call neurologist at the University of Alberta Hospital, who consulted with the on-board stroke physician.

The two doctors determined that Lukas should receive tPA, the clot-busting drug that restores blood flow to the brain in stroke victims.

Four months after his stroke, Lukas returned to work, fully recovered.

“We are so thankful for the Stroke Ambulance,” said Celine. “I knew that if Lukas didn't get help soon, our lives would be changed forever. When they showed up, it was a huge relief.”

TICK, TICK, TICK, TICK

When a stroke happens, the clock starts.

If it's an ischemic stroke, where a blood clot is preventing blood from getting to the brain, two million brain cells die every minute.

Without treatment, the results of an ischemic stroke can range from temporary impairment to permanent paralysis, speech and cognitive disabilities, and even death.

The clot-busting drug tPA can dissolve the clot and restore blood flow within minutes, but only after the stroke has been properly diagnosed, and the

only way to do that is with images taken of the patient's brain by a CT scanner.

To make matters even worse, if more than 4.5 hours passes between stroke onset and treatment, tPA cannot be administered.

Taking all of this into account, it's hard to imagine that a single innovative idea that is dramatically reducing the impact of stroke in northern Alberta could possibly exist – but it does.

THE STROKE AMBULANCE

FACT: Stroke treatment of any kind cannot be administered without first determining the type of stroke it is, and for that matter, if it's a stroke at all. The best way to do that is with a CT Scan.

Lifebot video conferencing equipment allows the crew to connect with a Stroke Neurologist at the hospital.



A first of its kind in Canada and the only such unit in the world to serve an outlying rural population.



A patient loses 2 million neurons each minute after suffering a stroke which is why early treatment is so critical.

Equipped with a CT scanner so patients can be examined in transit.



Treats rural patients 68 minutes faster than the usual care.

Lifepak is used in all EMS ambulances. It monitors vital signs and is a defibrillator.



Has point-of-care lab testing so blood work and analysis can be done on the ambulance within minutes.



The rapid delivery of patients, from other centres, to the University of Alberta Hospital can make the difference between death or disability and functional independence for select patients.

DR. TOM JEERAKATHIL, STROKE NEUROLOGIST, UNIVERSITY OF ALBERTA HOSPITAL

Projected economic benefits of the Stroke Ambulance include savings from reduced patient disability, redistribution of patients away from tertiary care when it is not required, reduced requirements for in-hospital care, and allowing rural EMS crews to remain in their home regions.

PILOT PROJECT

Thanks to over \$3.1M in community support through the University Hospital Foundation, the initial three-year Stroke Ambulance Pilot Project saw the purchase and customization of an ambulance with a built-in CT scanner and state of the art telehealth equipment for communicating back and forth with neurologists at the University of Alberta Hospital.

The funding also supported the operational costs for the first three phases of the program.

PHASE 1 >	PHASE 2 >	PHASE 3 >	PHASE 4
The Stroke Ambulance responded to strokes in rural Alberta only, encompassing areas within a 250 km radius of Edmonton.	Added patients suffering strokes within the Edmonton Zone hospitals without CT/thrombolytic capability.	Added transport within the zone of patients requiring emergency clot-retrieval procedures known as endovascular thrombectomies. The University of Alberta Hospital is the only hospital in northern Alberta with the capacity to perform these life-saving procedures.	We are now in Phase four , where the Stroke Ambulance is responding to the stroke 911 calls within the greater Edmonton area. Phase four will optimize the use of the initial investment by servicing areas with reduced access and those within the city to provide much needed clinical support in stroke care.

AND WHERE WE'RE AT TODAY

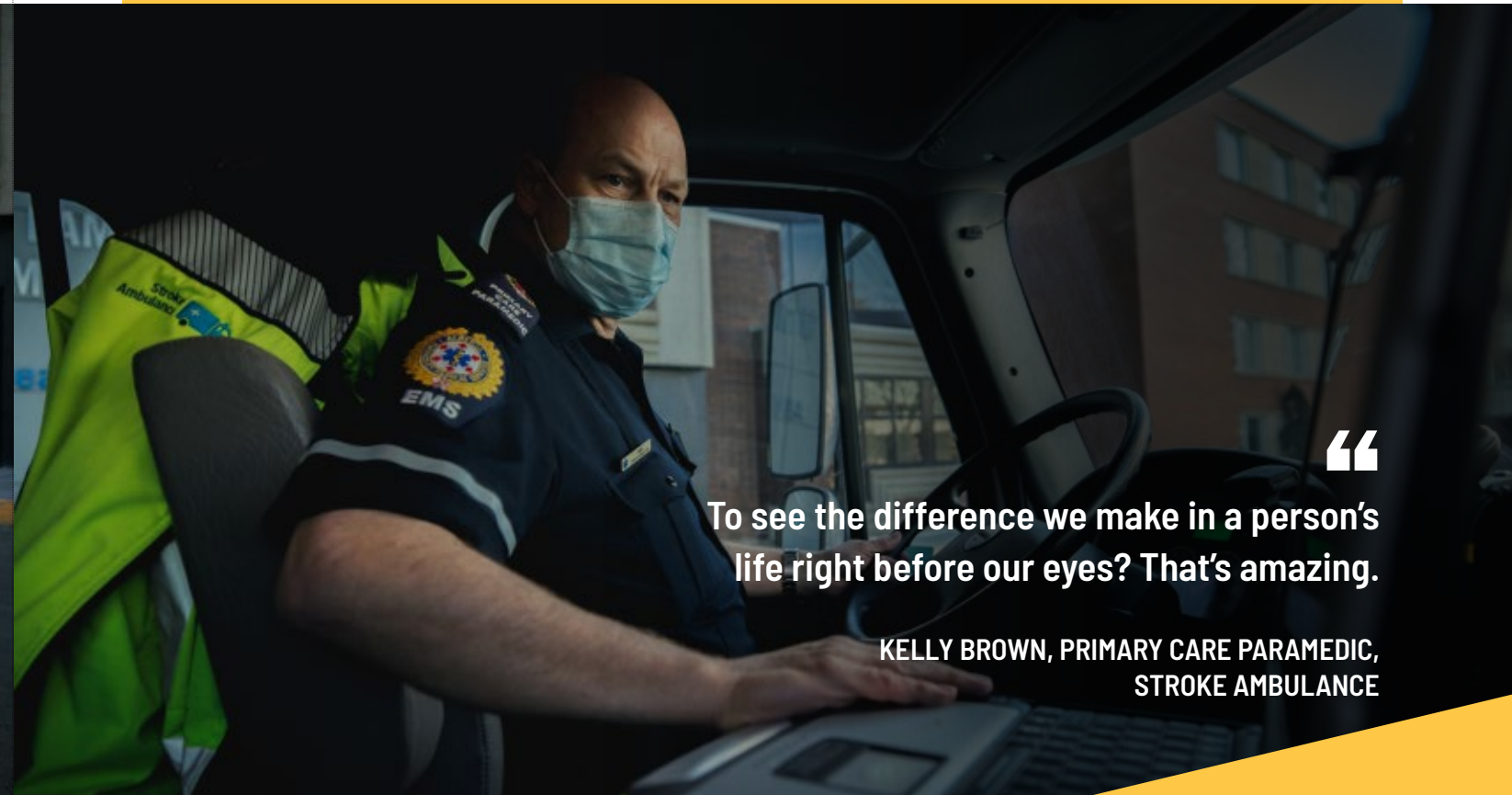
Without ongoing philanthropic support, the Stroke Ambulance Pilot Project will end, and with it, these unprecedented outcomes in stroke treatment:

<p>57% (of patients treated in the Stroke Ambulance) received clot-busting drug tPA, far higher than the 13% benchmark treatment rates in Canada, and faster by an average of 23 minutes.</p>	<p>80% good outcome rate Stroke Ambulance patients experience.</p>	<p>33% reduction in length of hospital stay for Stroke Ambulance patients with ischemic stroke.</p>	<p>31% of patients from rural areas would have presented too late for tPA had they not encountered the Stroke Ambulance.</p>
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Help us raise \$1.45 million to keep the Stroke Ambulance saving lives



The University Hospital Foundation is committed to continuously seek, inspire and lead bold solutions to seemingly insurmountable challenges and ignite new discoveries in health.



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To see the difference we make in a person's life right before our eyes? That's amazing.
KELLY BROWN, PRIMARY CARE PARAMEDIC,
STROKE AMBULANCE



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Success for such programs requires dramatic cultural and medical practice change, along with shifts in referral patterns. Changing the system takes time and investment.

DR. TOM JEERAKATHIL

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IS COMMITTED TO
RAISING \$1.45M IN
SUPPORT OF KEEPING
THE **STROKE AMBULANCE**
ON THE ROAD, AND
SAVING ALBERTANS**

[GIVETOUHF.CA/STROKE-AMBULANCE](https://givetouhf.ca/stroke-ambulance)