

RAPID^{AI}

Stroke strikes at any age

Learn how swift action, prehospital communication, and technology helped a young stroke survivor beat the odds

By all accounts, Eric Jacobowitz shouldn't have had a stroke. The firefighter and paramedic led a healthy life, eating well and keeping fit, and had no known preexisting conditions. At 29, he was also much younger than the average stroke patient. "Based on my previous knowledge of strokes, I was the least likely candidate to have one," he said.

Jacobowitz, who lives in Broward County, Florida, suffered a stroke while working out at the gym. He had just finished a rope climbing exercise and was about to send a text message when he noticed he wasn't able to move his left thumb. "That was the first sign," he recalled, "but I thought, it's not a big deal. I'm just fatigued from working out." Soon, though, he was unable to move his left leg and found himself on the floor, drawing the attention of a trainer and then the gym's owner who called 9-1-1.

EMS transported him to Memorial Hospital West in Pembroke Pines, Florida, a Joint Commission-certified thrombectomy capable stroke center, and alerted the neurointerventional team en route based on the region's pre-hospital stroke protocol for patients with high RACE scale scores. A non-contrast CT scan was performed as soon as Jacobowitz arrived. Because the site is equipped with the Rapid imaging platform, an automated notification was triggered as soon as the scan results were available. Dr. Brijesh P. Mehta, director of



Stroke survivor Eric Jacobowitz with neurointerventional surgeon Dr. Brijesh P. Mehta

neurointerventional surgery at the Memorial Neuroscience Institute, received the Rapid alert on his smartphone and wasted no time viewing the results. They revealed a hyperdense MCA sign and an ASPECT score of 10, prompting him to fast-track Jacobowitz for mechanical thrombectomy, a clot-retrieval procedure that would remove the blood clot causing his stroke. Thankfully his team was already on standby, having been activated early as part of the hospital's parallel stroke workflow.

"When I got the push notification from Rapid and saw that there was a hyperdense sign, it allowed us to let the team know it's definitely a go," Dr. Mehta said. "As soon as the scan was done, our team was ready to receive him."

Intravenous tPA bolus was administered in the emergency room to try and break up the clot before Jacobowitz was transported to the cath lab. There, the blocked artery was fully opened with mechanical thrombectomy and blood flow restored in under 60 minutes from his arrival at the hospital.

After the procedure was successfully completed, it was discovered that Jacobowitz had a patent foramen ovale, or PFO, a small hole between the two upper chambers of the heart, along with a genetic mutation that can cause blood clots—both of which contributed to his stroke. He is taking medication to help prevent a future stroke and has returned to



"Before Rapid, we were tethered to our workstations and opening up scans manually. There were multiple steps: entering username and password twice before you actually got to the point of opening up the software. It was very cumbersome, and there was no automation. I think that's really the value of artificial intelligence, not waiting for the radiologist and not having to disrupt our workflow. As soon as the scan is done, we get a push notification. I no longer have to be at my computer waiting for the scan to come through."

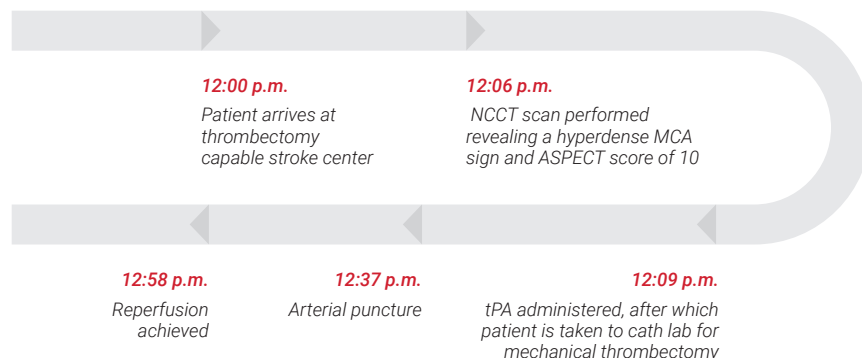
Brijesh P. Mehta, MD

Medical Director, Comprehensive Stroke Program and Neurointerventional Surgery
Memorial Healthcare System

work full-time. He said that being a stroke survivor has given him a stronger appreciation for the individuals he responds to in his role as a paramedic with Broward County Sheriff's Office. He also said his case is an example of how critical illnesses do not discriminate by age.

"It just goes to show you that there's no specific type of person strokes target, or that any disease targets," he said.

Stroke Timeline



Key Times



Door to needle:
9 minutes



Door to groin puncture:
37 minutes



Door to recanalization:
58 minutes

About RapidAI

RapidAI is the global leader in using AI to combat life-threatening vascular and neurovascular conditions. From home to hospital and ER to OR, RapidAI is leading the next evolution of clinical decision-making and patient workflow, bringing the end-to-end patient journey into focus. Based on intelligence gained from over 2.8 million scans in more than 1,800 hospitals in over 60 countries, the Rapid® platform transforms care coordination, offering care teams a level of patient visibility never before possible, saving lives, time and money. For more information, visit www.RapidAI.com.

RAPIDAI

RapidAI.com
info@rapidai.com
+1 650.388.9767



Dr. Brijesh P. Mehta with members of Hollywood Fire Rescue

Bridging the gap between hospital and EMS

Dr. Brijesh P. Mehta knows the importance of effective communication between hospital and EMS teams as well as anyone. As director of the comprehensive stroke program at Memorial Healthcare System, he deals with acute stroke cases daily and understands the difference seconds can make in the survival and recovery of his patients. Getting the right patients to the most appropriate facilities as quickly and seamlessly as possible is critical.

But in Broward County, Florida, where Memorial is located, challenges to effective pre-hospital operations exist. Eight different EMS agencies operate in this fragmented, highly populated region. Up until a few years ago, these agencies weren't communicating with one another and in many cases were operating by different protocols.

Dr. Mehta and the team at Memorial decided to change that. They've gotten each agency to agree to use the RACE score system for evaluating stroke patients and to notify the neurointerventionalist if the score is 5 or higher, indicating the possibility of a large vessel occlusion. The health system organizes training sessions each quarter to educate EMS teams on this stroke protocol, and Dr. Mehta even gives out his personal cell phone number, encouraging EMS to FaceTime him if they have questions about a suspected stroke patient.

"Our goal was to standardize the protocols, meet with all the EMS chiefs and medical directors, and have them at the table to make sure that whenever they encounter a stroke in the field, they would take the same steps regardless of which agency was responding," he explained.

As a result of optimizing stroke systems of care, patients are able to achieve the best outcomes possible.