

RAPID^{AI}

At every turn, he had people and technology dedicated to saving his life.

It seemed like any other evening when a 56-year-old Pennsylvania man turned in for the night. He appeared to be fine when he went to bed, but at around 3:30 am, his family discovered he was not well at all. He wasn't making sense when he spoke, was hemiparetic on his right side, and was suffering from aphasia with a facial droop.

Fortunately, his daughter, a high school sophomore, knew exactly what to do. Just the day before, she completed a course on stroke awareness, which was offered by the very hospital the paramedics would be taking her father to.

That community outreach course was part of a larger system-wide effort to raise the standards of stroke care at a health system in south central Pennsylvania that includes five primary stroke centers, a Telestroke program, and a comprehensive stroke center (CSC). The initiative also included the implementation and deployment of the Rapid® stroke imaging platform throughout the health system.

When the patient arrived at one of the system's primary stroke centers, he was written up as an acute stroke case and was ordered a non-contrast head CT scan. His presenting National Institute of Health Stroke Scale (NIHSS) score was 19. At that point, there was a hand off in care between the emergency department provider and another provider at the hospital. The next provider took over the case and ordered a CTA head and neck scan in accordance with the hospital's standard of care, which is conducted regardless of time of onset or presentation.

The Rapid CTA results showed just how serious his condition was becoming by indicating the presence of a suspected large vessel occlusion. An automatic Rapid notification was sent to the entire stroke team. Immediately upon receiving the notification, the neurologist and neurosurgeon at the health system's CSC—who both had shifts that had started just six minutes earlier—began gathering their teams and arranging for



the patient to be airlifted from the primary stroke center to the CSC.

When the patient arrived, the team immediately ran repeat CT scans, plus a parathyroid hormone (PTH) scan—that's the neurology department's preference in order to determine the extent of the damage—and wheeled him straight to the advanced procedure suite (APS). But his case was complicated by the onset of a heart attack. So at the same time the stroke team was addressing the patient's stroke, they were also preparing for a possible cardiac intervention.

Because his stroke was evolving, the team decided they would not take him to the cath lab, but just as the neurosurgeon crossed the lesion for the TICI 2b reback, the patient's heart attack went into high gear. The on-call cardiologist was notified and was able to come up to the APS where a cardiac catheterization was performed on the APS table. In the process, they determined that the patient was open enough to re-cath and stent him the next day, which they did.

It turned out that the thrombus in his heart essentially caused the stroke, and when they did the transthoracic echo, they were able to confirm what embolus was causing his large vessel occlusion.

The patient arrived with a NIHSS score of 19. By the time he got to the CSC, his NIHSS was 25. Post procedure he dropped to an NIHSS of 18. By discharge, he was at an NIHSS of 1, and is expected to make a complete recovery from the effects of the stroke with no rehab and no deficits. His heart condition is still being monitored, but he's getting better there, too. Thanks to his daughter, his doctors, and RapidAI, he'll have the chance to continue living his life to the fullest.

Stroke Timeline



RapidAI gives stroke teams and their patients more of what they desperately need: time. By notifying the entire stroke care team—doctors, emergency personnel and logistics—at the earliest possible moment and giving them the patient images and information they need to make the best possible decisions, they can save lives.

About RapidAI

RapidAI is the worldwide leader in advanced imaging for stroke. Installed in over 1,500 hospitals in more than 50 countries, the Rapid imaging platform, powered by artificial intelligence, includes Rapid CTP, Rapid MRI, Rapid CTA, Rapid ICH, and Rapid ASPECTS*. RapidAI empowers clinicians to make faster, more accurate diagnostic and treatment decisions for stroke patients using clinically proven, data-driven technology. With our validated, trusted platform, developed by stroke experts, clinicians worldwide are improving patient care and outcomes every day. The Rapid platform has been shown to aid in patient selection in both early and late-window clinical stroke trials. In addition to achieving the best clinical outcomes and largest treatment effects ever obtained, the results of these trials led to new American Heart Association and American Stroke Association treatment guidelines and have dramatically altered the management of acute stroke around the world. For more information, visit [RapidAI.com](https://rapidai.com).

*Rapid ASPECTS is not commercially available in the U.S.

RAPIDAI

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FAST

Face
Drooping

Arm
Weakness

Speech
Difficulty

Time to
Call 911

The patient's teenage daughter was able to recognize her father was having a stroke by identifying the F.A.S.T. warning signs she learned in a stroke awareness course just the day before. Her quick action helped to save her father's life.



Physicians received the patient's Rapid results on their mobile devices within minutes via the Rapid Mobile App. The immediacy of the mobile notification was invaluable—it let the stroke team know a suspected large vessel occlusion was present.