

### A Race Against Time

How a mother's care team defied odds to deliver timely treatment despite ambulance strikes



In January 2023, Deb Kelly had just started training for the Jurassic Coast half marathon along the Dorset Coast, England's first natural World Heritage site. She was 53 years old, fit, and worked as a physical education teacher for HM Prison Service.

A stroke was the last thing Deb and her family thought would happen to her. It occurred out of nowhere and without warning signs or symptoms. As far as Deb knew, she had no existing health conditions that put her at risk.

#### Good Luck in a Bad Situation

One Saturday morning, after a week of hydrating and prioritizing sleep as part of her training, Deb woke up like any other day. A few minutes later, she fell while going to the bathroom – unbeknownst to her sons who were home at the time. Eventually, Deb's eldest son grew worried. He found her on the floor and quickly realized something was wrong. Knowing the symptoms, he suspected his mom was having a stroke.

"My left side had gone all weak, I slurred, and my face was drooped as well. He probably thought I'd been drinking – but it was obviously a bit early," Deb joked. "So he raised the alarm, called my husband who was at work and phoned an ambulance. At the time, I didn't believe that I had a stroke."

Although many emergency care providers, including paramedics and ambulance crews, were on strike at the time amid disputes over staffing shortages, pay, and other issues, an ambulance fortunately responded to their category 2 call within 30 minutes and transported Deb and her 18-year-old son to the emergency department at the Royal Stoke University Hospital.

"I was lucky for my son to find me," she said, "but the ambulance being in the area and available despite the strikes was a postcode lottery."

#### A Race to Treatment

After undergoing a CT scan upon her arrival, which was quickly analyzed by Rapid CTP to quantify salvageable brain tissue, it was determined that Deb was likely experiencing a wake-up stroke (WUS) – defined by unknown time of onset and only detected upon awakening of the patient – and that she needed a mechanical thrombectomy. Dr. Sanjeev Nayak, an interventional neuroradiologist at Royal Stoke, immediately conducted a groin puncture to full recanalization.

"She had very good throughput because of quick scanning. We used the Rapid software and it showed us very useful information – without Rapid CT Perfusion, she may not have been treated otherwise. But instead, we treated her in very quick time, under three minutes," said Dr. Nayak.

"How I'm still sitting here and talking is unbelievable," remarked Deb. "If [the blood clot] hadn't been removed, I wouldn't be here right now. Dr. Nayak is a lifesaver."

By the time she was back in her hospital bed after the clot removal, Deb's face had returned to normal, and over the following days, she slowly regained use of the left side of her body. Out of an abundance of caution, Deb's care team kept her in the hospital for monitoring for a few days, after which she was discharged. "I walked out of the hospital, which is unbelievable knowing now what could

have happened if I hadn't been treated quickly enough and with the equipment they have at Royal Stoke," she said.

"This is a good example of not just a quick turnaround for a thrombectomy but also how this process has been sped up and how quickly things can happen when you have access to additional information provided by AI software," added Dr. Nayak.



Dr. Sanjeev Nayak  
Interventional Neuroradiologist

## Rapid Hero Story



Deb training for an Ultramarathon in the Longmynd, UK

### AI software is a necessity

"People and governments need to know that this AI software is a necessity," said Deb. Amid the healthcare strikes in the UK, having access to a dedicated care team and technology like Rapid's that enabled such a swift intervention proved extremely valuable for Deb. "RapidAI saves lives – it needs to be everywhere in the UK."

Only a few months later, Deb returned to her job with HM Prison Service and began slowly getting back into her training – one step at a time. "I went swimming the other day. It was a small goal and a good step in the recovery process... but I still want to run a marathon."

### Deb's Stroke Timeline



### About RapidAI

RapidAI is the global leader in using AI to combat life-threatening vascular and neurovascular conditions. Leading the next evolution of clinical decision-making and patient workflow, RapidAI is empowering physicians to make faster decisions for better patient outcomes. RapidAI – where AI meets patient care.

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## Spot a stroke B.E. F.A.S.T.

**B**

### BALANCE

Dizziness, loss of balance or coordination



**E**

### EYES

Sudden trouble seeing in one or both eyes



**F**

### FACE

Does one side of the face droop?



**A**

### ARM

Is one arm weak or numb?



**S**

### SPEECH

Is speech slurred?



**T**

### TIME

Call 911 immediately. Check the time so you will know when these symptoms first appeared.



### If you suspect a stroke, BE FAST:

By quickly recognizing the signs of stroke, Deb's son likely had a major impact on her outcome.

15 million people worldwide suffer a stroke annually and every minute a stroke goes untreated, 1.9 million brain cells die. Despite this, many people don't recognize the signs.

Early recognition of the signs of stroke becomes crucial to ensure stroke patients get the best possible treatment and attain full recovery.